

Deliverable D4.3

**Software Service Composition Under Devops Training Content
(Talks, Lectures, Seminars)**

Document details:

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1.0	05/03/2018	Michael Pingos	Collection of material
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3.0	09/03/2018	Andreas Christoforou	First review
5.0	12/03/2018	Michael Pingos	Corrections
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8.0	28/03/2018	Andreas Christoforou	Corrections on Formal Review
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10.0	24/01/2019	Lambros Lambrou	Add new content (Extended version)
11.0	05/02/2019	Andreas Christoforou	Review (Extended version)
12.0	08/02/2019	Prof. Andreas Andreou	Final Formal Review (Extended version)
13.0	12/02/2019	Partners	Final Formal Approval (Extended version)

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1. Introduction

1.1 Purpose

This document describes the presentations and other content given during lectures, talks or seminars for training purposes, delivered by the experts from the University of Tilburg (UvT) and the Politecnico di Milano (POLIMI) to members of the Cyprus University of Technology (CUT) on Software service composition under DevOps.

This deliverable is part of Work Package 4 (WP4) that describes the actions to enable successful transfer of knowledge from the leading institutions to CUT for luxuriating its knowledge base on technical issues of the automation of build, deployment and operation activities.

1.2 Definitions, Acronyms, and Abbreviations

CUT: Cyprus University of Technology

UvT: University of Tilburg

POLIMI: Politecnico di Milano

JADS: Jheronimus Academy of Data Science

1.3 Overview

The rest of this document is structured as follows: Section 2 describes the training content delivered by members of POLIMI, section 3 presents the training material covered by staff of UvT, section 4 describes material from a workshop held in Cyprus, and finally, section 5 concludes this document.

2. POLIMI Site Visits

2.1 First Site Visit (November 20-25, 2017)

During the first site visit of the fourth series of site visits, members from the CUT group attended a number of presentations given by the POLIMI group, and participated in discussions related to the topics of WP4. In particular, the general subject of these presentations and discussions was dealing with research challenges in Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration.

2.1.1 Day One

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	20/11/2017	Time:	09:00-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Introduction to Apache Spark (Part A)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambus, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Introduction to Apache Spark(Part A)	lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
spark.pdf	Giovanni Quattrocchi, PhD Candidate

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	20/11/2017	Time:	11:30-12:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Introduction to Apache Spark (Part B)

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	

Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Introduction to Apache Spark (Part B)	lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
spark.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	20/11/2017	Time:	13:30-15:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Big Data Processing with Spark (Part A)

2. Attendees

Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	

Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Big Data Processing with Spark (Part A)	lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
paper1.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	20/11/2017	Time:	16:00-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Big Data Processing with Spark (Part B)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	

Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Big Data Processing with Spark (Part B)	lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
paper1.pdf, nsdi15-paper-ousterhout.pdf	Giovanni Quattrocchi, PhD

2.1.2 Day Two

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	21/11/2017	Time:	09:00-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Metrics and Measurements Activities towards Resource Provisioning (Part A)

2. Attendees			
Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Introduction to Amazon CloudWatch	lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
AmazonCloudWatch.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	21/11/2017	Time:	11:30-12:30
Facilitator:	POLIMI	Location:	RITZ Milano Hotel Via Lazzaro Spallanzani, 40 20129 Milano

1. Subject / Short Description
Metrics and Measurements Activities towards Resource Provisioning (Part B)

2. Attendees			
Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Introduction to Amazon CloudWatch	lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
AmazonCloudWatch.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	20/11/2017	Time:	13:30-15:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Monitoring Tools for Cloud Environments (Part A)

2. Attendees

Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD Candidate	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Monitoring Tools for Cloud Environments(Part A)	lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
https://www.channele2e.com/software/apm/top-50-cloud-monitoring-and-management-tools-which-are-best/	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	21/11/2017	Time:	16:00-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Monitoring Tools for Cloud Environments (Part B)

2. Attendees

Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Monitoring Tools for Cloud Environments(Part B)	lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
https://www.channele2e.com/software/apm/top-50-cloud-monitoring-and-management-tools-which-are-best/	Giovanni Quattrocchi, PhD

2.1.3 Day Three

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	22/11/2017	Time:	09:00-12:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Studies on the topics presented

2. Attendees

Name	Department/Division	E-mail	Phone
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Monitoring Tools for Cloud Environments; Metrics and Measurements Activities towards Resource Provisioning; Big Data Processing with Spark	Study		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
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Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	22/11/2017	Time:	14:00-15:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Q & A on the topics presented

2. Attendees			
Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Q & A on the topics presented	Discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	22/11/2017	Time:	15:45-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Q & A on the topics presented

2. Attendees

Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Q & A on the topics presented	Discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
paper1.pdf, AmazonCloudWatch.pdf	Giovanni Quattrocchi, PhD

2.1.4 Day Four

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	23/11/2017	Time:	09:00-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Introduction to XSpark A (Part A)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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Introduction to XSpark A (Part A)	lecture	Giovanni Quattrocchi, PhD	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
xspark.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	23/11/2017	Time:	11:30-12:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Introduction to XSpark A (Part B)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Introduction to XSpark A (Part A)	Lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
xspark.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	23/11/2017	Time:	13:30-15:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
XSpark Implementation/Configuration(Part A)

2. Attendees			
Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	

Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
XSpark Implementation/Configuration	Applied Training		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	23/11/2017	Time:	16:00-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

XSpark Implementation/Configuration(Part B)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	

Michael Pingos, MSc Student	CUT/Cyprus	michael.pingos@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
XSpark Implementation/Configuration	Applied Training		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

2.1.5 Day Five

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	24/11/2017	Time:	09:00-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Design and Conduct Experiments

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Design and Conduct Experiments	Applied Training		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	24/11/2017	Time:	11:30-12:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Design and Conduct Experiments

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Design and Conduct Experiments	Applied Training		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	24/11/2017	Time:	14:00-16:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Planning of next research steps for resource management with xSpark

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Planning of next research steps for resource management with xSpark	Discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Xspark.pdf	Giovanni Quattrocchi, PhD

2.1.6 Day Six

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	24/11/2017	Time:	19:00-12:00
Facilitator:	POLIMI	Location:	Atahotel Linea Uno Viale Monza, 139, 20127 Milan

1. Subject / Short Description

Summary visits – Planning of next actions

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Spyros Loizou, MSc Student	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Summary visits – Planning of next actions	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

2.2 Second Site Visit (December 14-16, 2017)

Members from the CUT group participated in the second site visit at POLIMI. During this visit members from the POLIMI group presented their work that is related to software development and deployment for distributed applications. Secondly, a comprehensive introduction on modeling social debt with FCMs project was made.

2.2.1 Day One

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	14/12/2017	Time:	09:00-10:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation of the work done on implementation issues related to community smells

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
How community smells lead to Social Debt	Presentation	Constantinos Stylianou, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Social_Debt_Presentation.pptx

Constantinos Stylianou, PhD
Foivos Kasapis, MSc student

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	14/12/2017	Time:	11:00-12:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation of work done on architectural (design) community smells

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation of work done on architectural (design) community smells	Presentation	Constantinos Stylianou, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Social_Debt_Presentation.pptx	Constantinos Stylianou, PhD Foivos Kasapis, MSc student

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	14/12/2017	Time:	13:00-14:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation of CodeFace4Smells and installation

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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Framework and web front-end for analyzing technical and social aspects of software development	Presentation	Martin Garriga, PhD	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
https://github.com/maelstromdat/CodeFace4Smells	
https://maelstromdat.github.io/CodeFace4Smells/#/home	

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	14/12/2017	Time:	14:00-15:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

CodeFace4Smells troubleshooting and running analyses of open source software projects (Firefox, FFmpeg, LibreOffice)

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Framework and web front-end for analyzing technical and social aspects of software development	Presentation	Martin Garriga, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
https://github.com/maelstromdat/CodeFace4Smells	
https://maelstromdat.github.io/CodeFace4Smells/#/home	

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	14/12/2017	Time:	16:00-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Presentation of work done on implementation issues for community smells

2. Attendees			
Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	

Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
How community smells lead to Social Debt	Presentation	Constantinos Stylianou, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Social_Debt_Presentation.pptx	Constantinos Stylianou, PhD

2.2.2 Day Two

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	15/12/2017	Time:	09:00-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation on modelling social debt with FCMs (part 1)

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation on modeling social debt with FCMs (part 1)	Lecture	Martin Garriga, PhD candidate	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	15/12/2017	Time:	11:30-12:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation on modelling social debt with FCMs (part 2)

2. Attendees			
Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation on modeling social debt with FCMs (part 2)	Lecture	Martin Garriga, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
SocialDept2FCM.pptx	Martin Garriga, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	15/12/2017	Time:	13:30-14:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on FCM concept standardization issues

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on FCM concept standardization issues	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
SocialDept2FCM.pptx	Martin Garriga, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	15/12/2017	Time:	14:30-15:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on FCM concept aggregation issues

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on FCM concept aggregation issues	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	15/12/2017	Time:	16:00-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on FCM concept fuzzification and measuring

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on FCM concept fuzzification and measuring	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

2.2.3 Day Three

Workpackage:	WP4. Automation of build, deployment and operation activities
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Date: (MM/DD/YYYY)	16/12/2017	Time:	09:00-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Brainstorming and discussion on possible machine learning algorithms to solve the problem of community smells forecasting

Discussion on ways to solve the problem of FCM initialization and normalization

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Identify machine learning algorithms to solve the problem of community smells forecasting FCM initialization and normalization	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	16/12/2017	Time:	11:30-13:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Planning of next research steps for community smells;
 Planning of next research steps for social debt

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Planning of next research steps for community smells and social debt	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	16/12/2017	Time:	15:00-16:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Coordination activities

2. Attendees

Name	Department/Division	E-mail	Phone
Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Stefanos Manoli, MSc student	CUT / Cyprus	sp.manoli@ edu.cut.ac.cy	
Foivos Kasapis, MSc student	CUT / Cyprus	fp.kasapis@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Coordination activities	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

2.3 Third Site Visit (February 5-6, 2018)

Members from the CUT group participated in the third site visit at POLIMI. During this visit members from the POLIMI group presented their work that is related to software development and deployment for distributed applications. At first, a comprehensive introduction “Fine-grained Resource Provisioning for Big-data Applications” (xSpark) was made.

2.3.1 Day One

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	05/02/2018	Time:	09:00-10:45
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation of work “Fine-grained Resource Provisioning for Big-data Applications” (xSpark)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Prof. Andreas Andreou	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT/Cyprus	andreas.christoforou@cut.ac.cy	
Prof. Soterios Chatzis	CUT/Cyprus	chatzis.soterios@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Fine-grained Resource Provisioning for Big-data Applications	discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Xspark.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	05/02/2018	Time:	11:15-13:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Discussion on extension of work “Fine-grained Resource Provisioning for Big-data Applications” (xSpark) utilizing ML models

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Prof. Andreas Andreou	CUT/Cyprus	spyros.loizou@cut.ac.cy	

Andreas Christoforou, PhD Student	CUT/Cyprus	andreas.christoforou@cut.ac.cy	
Prof. Soterios Chatzis	CUT/Cyprus	chatzis.soterios@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Fine-grained Resource Provisioning for Big-data Applications (xSpark) utilizing ML models	Discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Xspark.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	05/02/2018	Time:	14:00-15:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on technical aspects of xSpark extension

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Prof. Andreas Andreou	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT/Cyprus	andreas.christoforu@cut.ac.cy	
Prof. Soterios Chatzis	CUT/Cyprus	chatzis.soterios@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT/Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Technical aspects of xSpark extension	Discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
xspark.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	05/02/2018	Time:	15:45-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on extension of work “Supporting the Decision of Migrating to Microservices Through Multi-Layer Fuzzy Cognitive Maps”

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Prof. Andreas Andreou	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT/Cyprus	andreas.christoforou@cut.ac.cy	
Prof. Soterios Chatzis	CUT/Cyprus	chatzis.soterios@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Supporting the Decision of Migrating to Microservices Through Multi-Layer Fuzzy Cognitive Maps	Discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
fuzzy.pdf	Giovanni Quattrocchi, PhD

2.3.2 Day Two

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/02/2018	Time:	09:00-10:45
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation of work “A mixed integer linear programming optimization approach for multi-cloud capacity allocation”

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	
Prof. Andreas Andreou	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT/Cyprus	andreas.christoforou@cut.ac.cy	
Prof. Soterios Chatzis	CUT/Cyprus	chatzis.soterios@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
A mixed integer linear programming optimization approach for multi-cloud capacity allocation	discussion	Prof. Danilo Ardagna	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
linear.pdf	Prof. Danilo Ardagna

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/02/2018	Time:	11:15-13:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on extension of work “A mixed integer linear programming optimization approach for multi-cloud capacity allocation” utilizing ML models

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	
Prof. Andreas Andreou	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT/Cyprus	andreas.christofooru@cut.ac.cy	
Prof. Soterios Chatzis	CUT/Cyprus	chatzis.soterios@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
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A mixed integer linear programming optimization approach for multi-cloud capacity allocation utilizing ML models	Discussion	Prof. Danilo Ardagna	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Linear.pdf	Prof. Danilo Ardagna

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/02/2018	Time:	14:00-15:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on technical aspects of multi-cloud experimental environment

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Prof. Andreas Andreou	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT/Cyprus	andreas.christoforou@cut.ac.cy	
Prof. Soterios Chatzis	CUT/Cyprus	chatzis.soterios@cut.ac.cy	

Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Technical aspects of multi-cloud experimental environment	Discussion	Prof. Danilo Ardagna	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Linear.pdf, fuzzy.pdf	Prof. Danilo Ardagna

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/02/2018	Time:	15:45-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Summary and conclusion of the Site Visit

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	

Martin Garriga, PhD	POLIMI / Italy	martin.garriga@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Prof. Andreas Andreou	CUT/Cyprus	spyros.loizou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT/Cyprus	andreas.christoforou@cut.ac.cy	
Prof. Soterios Chatzis	CUT/Cyprus	chatzis.soterios@cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nicolas.charalambus@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Linear.pdf, fuzzy.pdf	Discussion	Martin Garriga, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Linear.pdf, fuzzy.pdf	Martin Garriga, PhD

2.4 Fourth Site Visit (September 10-14, 2018)

During the fourth and last site visit at POLIMI, CUT members attended a number of presentations given by the POLIMI group regarding the related topics of WP4. More specifically, the topics of focus were distributed processing, resource monitoring, service synthesis and smart manufacturing.

2.4.1 Day One

Workpackage:	WP4. Automation of build, deployment and operation activities
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Date: (MM/DD/YYYY)	09/10/2018	Time:	10:00-12:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation on X-Spark and corresponding Azure configuration

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation on X-Spark and Azure	Presentation	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
xsparkazure.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/10/2018	Time:	14:00-16:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion and experimentation on X-Spark and Azure

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion and experimentation on X-Spark and Azure	Discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/10/2018	Time:	17:00-18:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Future research work on X-Spark and Azure

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Future research work on X-Spark and Azure	Discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

2.4.2 Day Two

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/11/2018	Time:	10:00-12:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation on Smart Manufacturing

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation on Smart Manufacturing	Presentation	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
smartman.pdf	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/11/2018	Time:	14:00-16:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on Smart Manufacturing and Visualization

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on Smart Manufacturing and Visualization	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/11/2018	Time:	17:00-18:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on protégé platform and future research work

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on protégé platform and future research work	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

2.4.3 Day Three

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/12/2018	Time:	08:30-09:30
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation on applications of microservices and cloud computing

2. Attendees

Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time

Presentation on applications of microservices and cloud computing	Presentation	Giovanni Quattrocchi, PhD	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
microservices.pdf	Giovanni Quattrocchi, PhD

2.4.4 Day Four

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/13/2018	Time:	10:00-12:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Presentation on cloud services synthesis (Politecnico di Milano)

2. Attendees

Name	Department/Division	E-mail	Phone
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation on cloud services synthesis (Politecnico di Milano)	Presentation	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
cloudsynthesis.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/13/2018	Time:	14:00-16:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on Cloud Services Synthesis

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on Cloud Services Synthesis	Discussion	Prof. Danilo Ardagna	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/13/2018	Time:	17:00-18:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Discussion on microservices and DevOps

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on microservices and DevOps	Discussion	Prof. Danilo Ardagna	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

2.4.5 Day Five

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/14/2018	Time:	09:00-11:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description
Discussion on services synthesis combining machine learning

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Danilo Ardagna	POLIMI / Italy	danilo.aradagna@polimi.it	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	

Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on services synthesis combining machine learning	Discussion	Prof. Danilo Ardagna	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	09/14/2018	Time:	14:00-17:00
Facilitator:	POLIMI	Location:	POLIMI, III floor, building 22, via Golgi, 42, Milan

1. Subject / Short Description

Follow up research activities on Spark resource management and Big Data processes

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT/Cyprus	andreas.christoforou@cut.ac.cy	

Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Lambros Odysseos, MSc Student	CUT / Cyprus	lambros.odysseos@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Follow up research activities on Spark resource management and Big Data processes	Discussion	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

3. UvT Site Visits

3.1 First Site Visit (December 4-9, 2017)

Researchers and postgraduate students from the CUT group participated in this site visit, in JADS. During this visit a number of lectures were given by UvT/JADS group members. The lectures covered a wide range of aspects and research topics on cloud distributed systems, such as data science and intelligence sharing, big data and analytics and smart manufacturing.

3.1.1 Day One

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	04/12/2017	Time:	11:00-11:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Training and discussion about Smart Data Processing, Automation, Smart Manufacturing & Industry.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
Vasiliou Christoforos, Undergraduate Student	CUT / Cyprus	char.vasiliou@edu.cut.ac.cy	
Antoniou Panagiotis, Undergraduate Student	CUT / Cyprus	pk.antoniou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Smart Data Processing, Automation, Smart Manufacturing & Industry	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
delloite.pdf, sap.pdf	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	04/12/2017	Time:	11:30-13:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Training and discussion about Smart Data Processing, Automation, Smart Manufacturing & Industry

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
Vasiliou Christoforos, Undergraduate Student	CUT / Cyprus	char.vasiliou@edu.cut.ac.cy	
Antoniou Panagiotis, Undergraduate Student	CUT / Cyprus	pk.antoniou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time

Smart Data Processing Processing, Automation, Smart Manufacturing & Industry	Discussion	Indika Priyantha, PhD	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
delloite.pdf, sap.pdf	Indika Priyantha, PhD

3.1.2 Day Two

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	05/12/2017	Time:	09:30-11:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Training and discussion about Smart Data Processing Processing, Automation, Smart Manufacturing & Industry.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

Vasiliou Christoforos, Undergraduate Student	CUT / Cyprus	char.vasiliou@edu.cut.ac.cy	
Antoniou Panagiotis, Undergraduate Student	CUT / Cyprus	pk.antoniou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Smart Data Processing, Automation, Smart Manufacturing & Industry	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
sman.pdf	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	05/12/2017	Time:	11:30-13:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Training and discussion about Smart Data Processing Processing, Automation, Smart Manufacturing & Industry.

2. Attendees

Name	Department/Division	E-mail	Phone

Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
Vasiliou Christoforos, Undergraduate Student	CUT / Cyprus	char.vasiliou@edu.cut.ac.cy	
Antoniou Panagiotis, Undergraduate Student	CUT / Cyprus	pk.antoniou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Smart Data Processing Processing, Automation, Smart Manufacturing & Industry	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
sman.pdf	Indika Priyantha, PhD

3.1.3 Day Three

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/12/2017	Time:	09:30-11:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Training and discussion about Smart Data Processing, Automation, Smart Manufacturing & Industry.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
Vasiliou Christoforos, Undergraduate Student	CUT / Cyprus	char.vasiliou@edu.cut.ac.cy	
Antoniou Panagiotis, Undergraduate Student	CUT / Cyprus	pk.antoniou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Smart Data Processing, Automation, Smart Manufacturing & Industry.	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
blueprint.pdf	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/12/2017	Time:	11:30-13:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Training and discussion about Smart Data Processing Processing, Automation, Smart Manufacturing & Industry.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
Vasiliou Christoforos, Undergraduate Student	CUT / Cyprus	char.vasiliou@edu.cut.ac.cy	
Antoniou Panagiotis, Undergraduate Student	CUT / Cyprus	pk.antoniou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Smart Data Processing, Automation, Smart Manufacturing & Industry.	discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
blueprint.pdf	Indika Priyantha, PhD

3.1.4 Day Four

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	07/12/2017	Time:	09:00-10:30
Facilitator:	VU Amsterdam, Netherlands	Location:	Room P.423 Sciences building, 4th floor De Boelelaan 1105, 1081 HV Amsterdam, Netherlands

1. Subject / Short Description

Discussion and future work about Software Automation, Microservices Synthesis.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Prof. Patricia Lago	VU Amsterdam / The Netherlands	p.lago@vu.nl	
Prof. Ivano Malavolta	VU Amsterdam / The Netherlands	i.malavolta@vu.nl	

Adonis Podinas, MSc student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Christoforou Andreas, PhD Student	CUT / Cyprus	andreas.christoforou@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
AMS_2017.pdf	Prof. Ivano Malavolta
ICSA_2017_tool.pdf	Prof. Ivano Malavolta
ICSA_2017.pdf	Prof. Patricia Lago
ivanolaccongres2017-171123133332.pdf	Prof. Ivano Malavolta
SoftwareSustainability.pdf	Prof. Patricia Lago

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/12/2017	Time:	11:30-13:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion and future work about Smart Data Processing Processing, Automation, Smart Manufacturing & Industry.

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Adonis Podinas, MSc student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Christoforou Andreas, PhD Student	CUT / Cyprus	andreas.christoforou@cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
Vasiliou Christoforos, Undergraduate Student	CUT / Cyprus	char.vasiliou@edu.cut.ac.cy	
Antoniou Panagiotis, Undergraduate Student	CUT / Cyprus	pk.antoniou@edu.cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

3.1.5 Day Five

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	08/12/2017	Time:	09:00-11:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion and future work about Smart Data Processing Processing, Automation, Smart Manufacturing & Industry.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Adonis Podinas, MSc student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	andreas.christoforou@cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
Vasiliou Christoforos, Undergraduate Student	CUT / Cyprus	char.vasiliou@edu.cut.ac.cy	
Antoniou Panagiotis, Undergraduate Student	CUT / Cyprus	pk.antoniou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	08/12/2017	Time:	11:30-13:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion and future work about Smart Data Processing Processing, Automation, Smart Manufacturing & Industry.

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Mike Papazoglou	UvT / The Netherlands	mikep@uvt.nl	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Adonis Podinas, MSc student	CUT / Cyprus	ak.podinas@edu.cut.ac.cy	
Christoforou Andreas, PhD Student	CUT / Cyprus	andreas.christoforou@cut.ac.cy	

Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
Vasiliou Christoforos, Undergraduate Student	CUT / Cyprus	char.vasiliou@edu.cut.ac.cy	
Antoniou Panagiotis, Undergraduate Student	CUT / Cyprus	pk.antoniou@edu.cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

3.2 Second Site Visit (June 10-16, 2018)

Researchers and postgraduate students from the CUT group participated in this site visit, in JADS. During this visit a number of lectures were given by UvT/JADS group members. The lectures covered a wide range of aspects and research topics on cloud distributed systems, such as data science and intelligence sharing, big data and analytics and smart manufacturing.

3.2.1 Day One

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/10/2018	Time:	12:30-14:00

Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands
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1. Subject / Short Description

Presentation on Smart Manufacturing

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation on Smart Manufacturing	Presentation	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
industry40.pdf	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/10/2018	Time:	15:00-16:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion on Smart Manufacturing: Current Technology

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on Smart Manufacturing: Current Technology.	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/10/2018	Time:	17:00-18:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion on Smart Manufacturing: Role of big data, IoT and other technologies

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on Smart Manufacturing: Role of big data, IoT and other technologies	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

3.2.2 Day Two

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/11/2018	Time:	09:00-10:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Presentation of work done by SEIIS Lab on Extension of Product oriented Configuration Language (PoCL) with 3D/CAD/Gamification modelling

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time

Presentation of work done by SEIS Lab on Extension of Product-oriented Configuration Language (PoCL) with 3D/CAD/Gamification modelling	Presentation	Michael Pingos, MSc	
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4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
seis.pdf	Michael Pingos, MSc

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/11/2018	Time:	11:00-13:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion on issues of Extension of Product-oriented Configuration Language (PoCL) with 3D/CAD/Gamification modelling

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on issues of Extension of Product-oriented Configuration Language (PoCL) with 3D/CAD/Gamification modelling	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/11/2018	Time:	14:00-15:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Presentation of work done by SEIIS Lab on an extended MDA for smart manufacturing

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	

Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation of work done by SEIIS Lab on an extended MDA for smart manufacturing	Presentation	Spyros Loizou, MSc	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
seis2.pdf	Spyros Loizou, MSc

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/11/2018	Time:	16:00-18:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion on issues of an extended MDA for smart manufacturing: (i) Platform Independent Model (PoCL following our approach), and Platform Specific Model (Blueprints models)

2. Attendees

Name	Department/Division	E-mail	Phone
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on issues of an extended MDA for smart manufacturing: (i) Platform Independent Model (PoCL following our approach), and Platform Specific Model (Blueprints models)	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

3.2.3 Day Three

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/12/2018	Time:	09:00-10:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Presentation by UvT member on Data Driven Society

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation on Data Driven Society	Presentation	Prof. Damian Andrew Tamburri	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
datadriven.pdf	Prof. Damian Andrew Tamburri

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/12/2018	Time:	11:00-12:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion on Stakeholder Engagement in Data Driven Societies

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on Stakeholder Engagement in Data Driven Societies	Discussion	Prof. Damian Andrew Tamburri	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/12/2018	Time:	13:30-15:00

Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands
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1. Subject / Short Description

Presentation by UvT member on Platform Specific Model (Blueprints models)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation on Platform Specific Model (Blueprints models)	Presentation	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Blueprints.pdf	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/12/2018	Time:	15:30-17:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion on gamification platforms applied in Smart Manufacturing

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on gamification platforms applied in Smart Manufacturing	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

3.2.4 Day Four

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/13/2018	Time:	09:00-11:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Lecture by POLIMI member for microservices

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Filgueira Mendonça	POLIMI / Italy	danilo.filgueira@polimi.it	
Bert-Jan Butijn	JADS / The Netherlands	b.j.butijn@jads.nl	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	

Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Lecture on microservices	Lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Microservices2.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/13/2018	Time:	11:30-13:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Lecture by UvT member

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Filgueira Mendonça	POLIMI / Italy	danilo.filgueira@polimi.it	
Bert-Jan Butijn	JADS / The Netherlands	b.j.butijn@jads.nl	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Lecture on Augmented Reality	Lecture	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
3daugmented.pdf	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/13/2018	Time:	14:30-16:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Lecture by POLIMI member microservices synthesis

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Filgueira Mendonça	POLIMI / Italy	danilo.filgueira@polimi.it	
Bert-Jan Butijn	JADS / The Netherlands	b.j.butijn@jads.nl	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Lecture on microservices synthesis	Lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
synthesis.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/13/2018	Time:	17:00-19:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description
Lecture by UvT member

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	

Danilo Filgueira Mendonça	POLIMI / Italy	danilo.filgueira@polimi.it	
Bert-Jan Butijn	JADS / The Netherlands	b.j.butijn@jads.nl	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Lecture on Protégé Platform	Lecture	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Protégé.pdf	Indika Priyantha, PhD

3.2.5 Day Five

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/14/2018	Time:	09:00-11:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Lecture by POLIMI member on cloud computing

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Filgueira Mendonça	POLIMI / Italy	danilo.filgueira@polimi.it	
	JADS / The Netherlands		
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Lecture on cloud computing	Lecture	Luciano Baresi, Prof	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
cloud.pdf	Luciano Baresi, Prof

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/14/2018	Time:	11:30-13:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Lecture by UvT member

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Filgueira Mendonça	POLIMI / Italy	danilo.filgueira@polimi.it	
Bert-Jan Butijn	JADS / The Netherlands	b.j.butijn@jads.nl	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	

Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Lecture on Blockchain	Lecture	Bert-Jan Butijn, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
blockchain.pdf	Bert-Jan Butijn, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/14/2018	Time:	14:30-16:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Round Table Discussion

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Filgueira Mendonça	POLIMI / Italy	danilo.filgueira@polimi.it	
Bert-Jan Butijn	JADS / The Netherlands	b.j.butijn@jads.nl	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Round Table Discussion	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/14/2018	Time:	17:00-17:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Closing Session

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Filgueira Mendonça	POLIMI / Italy	danilo.filgueira@polimi.it	
Bert-Jan Butijn	JADS / The Netherlands	b.j.butijn@jads.nl	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Closing Session	Session		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/14/2018	Time:	17:30-18:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description
Project Management Meeting

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Danilo Filgueira Mendonça	POLIMI / Italy	danilo.filgueira@polimi.it	

Bert-Jan Butijn	JADS / The Netherlands	b.j.butijn@jads.nl	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Project Management Meeting	Meeting		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

3.2.6 Day Six

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/15/2018	Time:	09:00-10:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Presentation by SEIS Lab on Community Smells prediction

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation by SEIS Lab on Community Smells prediction	Presentation	Constantinos Stylianou, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
csmell.pdf	Constantinos Stylianou, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/15/2018	Time:	11:00-12:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion on the features of Product-service systems, parts, components, etc. (part 2)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on the features of Product-service systems, parts, components, etc. (part 2)	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/15/2018	Time:	13:30-15:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Presentation by UvT member: Detecting Code Smells using Machine Learning Techniques: Are We There Yet?

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation: Detecting Code Smells using Machine Learning Techniques: Are We There Yet?	Presentation	Damian Andrew Tamburi, Prof	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
smells3.pdf	Damian Andrew Tamburi, Prof

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/15/2018	Time:	15:30-17:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion on smart manufacturing third model/Layer call Factory Floor Specific Model (FFSM) (part 2)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Prof. Damian Andrew Tamburri	JADS / The Netherlands	d.a.tamburri@tue.nl	
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Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on smart manufacturing third model/Layer call Factory Floor Specific Model (FFSM) (part 2)	Discussion	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

3.2.7 Day Seven

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/16/2018	Time:	09:00-11:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Presentation by UvT member

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Presentation on Tosca Ontology Language	Presentation	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
tosca.pdf	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/16/2018	Time:	11:30-13:30
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Discussion on TOSCA (Topology and Orchestration Specification for Cloud Applications)

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Discussion on TOSCA (Topology and Orchestration Specification for Cloud Applications)	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/16/2018	Time:	14:30-16:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Brainstorming and discussion on smart manufacturing third model/Layer and features of Product-service systems

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Brainstorming and discussion on smart manufacturing third model/Layer and features of Product-service systems	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	06/16/2018	Time:	16:30-17:00
Facilitator:	UvT	Location:	Sint Janssingel 92, 5211 DA 's-Hertogenbosch, Netherlands

1. Subject / Short Description

Closing Session and Coordination Activities

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
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Spyros Loizou, MSc Student	CUT / Cyprus	spyros.loizou@cut.ac.cy	
Michalis Pingos, MSc Student	CUT / Cyprus	michalis.pingos@cut.ac.cy	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Closing Session and Coordination Activities	Session		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by

4. CUT Workshop – Cyprus (February 26-28, 2018)

Representatives from all project partners participated in the third workshop organized at the CUT premises in Limassol. During this 3-day workshop members from POLIMI and UvT delivered lectures and presentations to members of the CUT group, as well as to other researchers and students. Also, a project management meeting was conducted in which members from all partners discussed the progress of the project. On the last day of the workshop, the 3rd Stakeholders Meeting and Workshop on Cloud Computing, Software Services and Smart Data Processing was organized. Members from all project partners presented the DOSSIER-Cloud project and part of its work to a group of targeted local stakeholders. After that, a discussion for collaboration between the DOSSIER-Cloud members and the local stakeholders was performed.

4.1 Day One

Work package:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	26/02/2018	Time:	09:00-10:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Some 20 years of service composition

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Meroni, PhD Student	POLIMI / Italy	giovanni.meroni@cut.ac.cy	
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Michael Pingos, MSc Student	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
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Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Some 20 years of service composition	Lecture	Prof. Luciano Baresi	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Baresi_cyprus.pdf	Prof. Luciano Baresi

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	26/02/2018	Time:	10:00-11:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Data Engineering Patterns

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Meroni, PhD Student	POLIMI / Italy	giovanni.meroni@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos, MSc Student	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
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Spyros Loizou, MSc Student	CUT / Cyprus	Sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	

Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Data Engineering Patterns	Lecture	Prof. Willem-Jan van den Heuvel	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
cyprus-lectureFeb2018.pdf	Prof. Willem-Jan van den Heuvel

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	26/02/2018	Time:	12:00-13:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

How to compose Containers and Serverless Functions - Part A

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Meroni, PhD Student	POLIMI / Italy	giovanni.meroni@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos, MSc Student	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	Sp.loizou@edu.cut.ac.cy	
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Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
How to compose Containers and Serverless Functions - Part A	Lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
GQ_p1.pdf	Giovanni Quattrocchi, PhD

Workpackage:	WP4 – Automatic monitoring of service delivery, Cloud resource management and decision support and/or automatic re-configuration		
Date: (MM/DD/YYYY)	26/02/2018	Time:	13:00-14:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

How to compose Containers and Serverless Functions - Part B

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Meroni, PhD Student	POLIMI / Italy	giovanni.meroni@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos, MSc Student	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
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Spyros Loizou, MSc Student	CUT / Cyprus	Sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	

Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
How to compose Containers and Serverless Functions - Part B	Lecture	Giovanni Quattrocchi, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
GQ_p2.pdf	Giovanni Quattrocchi, PhD

4.2 Day Two

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	27/02/2018	Time:	09:00-10:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Microservices Architecture - Part A

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Meroni, PhD Student	POLIMI / Italy	giovanni.meroni@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos, MSc Student	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	Sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Microservices Architecture - Part A	Lecture	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Indika_microservices_1_2	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	27/02/2018	Time:	10:00-11:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Microservices Architecture - Part B

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Meroni, PhD Student	POLIMI / Italy	giovanni.meroni@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos, MSc Student	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	Sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	

Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT/ The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Microservices Architecture - Part B	Lecture	Indika Priyantha, PhD	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Indika_microservices_1_2	Indika Priyantha, PhD

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	27/02/2018	Time:	12:00-13:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Artifact-driven Process Monitoring: an IoT-based Technique to Monitor Multi-party Business Processes - Part A

2. Attendees

Name	Department/Division	E-mail	Phone

Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Meroni, PhD Student	POLIMI / Italy	giovanni.meroni@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos, MSc Student	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	Sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Artifact-driven Process Monitoring: an IoT-based Technique to Monitor Multi-party Business Processes - Part A	Lecture	Giovanni Merronii, PhD Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
GM_p1_p2.pdf	Giovanni Merronii, PhD Student

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	27/02/2018	Time:	13:00-14:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description

Artifact-driven Process Monitoring: an IoT-based Technique to Monitor Multi-party Business Processes - Part B

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	
Giovanni Meroni, PhD Student	POLIMI / Italy	giovanni.meroni@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
Michael Pingos, MSc Student	CUT / Cyprus	mf.pingos@edu.cut.ac.cy	
Nicolas Charalambous, MSc Student	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
Spyros Loizou, MSc Student	CUT / Cyprus	Sp.loizou@edu.cut.ac.cy	
Constantinos Stylianou, PhD	CUT / Cyprus	cstylianou@cs.ucy.ac.cy	
Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Artifact-driven Process Monitoring: an IoT-based Technique to Monitor Multi-party Business Processes - Part B	Lecture	Giovanni Merronii, PhD Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
GM_p1_p2.pdf	Giovanni Merronii, PhD Student

4.3 Day Three

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	28/02/2018	Time:	09:00-09:45
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description
Practical benefits of 20 years of Services Composition

2. Attendees			
Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
Prof. Andreas Andreou	CUT / Cyprus	andreas.andreou@cut.ac.cy	

Giovanni Meroni, PhD Student	POLIMI / Italy	giovanni.meroni@cut.ac.cy	
Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
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Nicolas Charalambous, MSc Student	CUT / Cyprus	nx.charalampous@edu.cut.ac.cy	
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Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Practical benefits of 20 years of Services Composition	Lecture	Prof. Luciano Baresi	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
Baresi_cyprus2.pdf	Prof. Luciano Baresi

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	28/02/2018	Time:	09:45-10:30

Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol
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1. Subject / Short Description

Data Science and DevOps

2. Attendees

Name	Department/Division	E-mail	Phone
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Giovanni Quattrocchi, PhD	POLIMI / Italy	giovanni.quattrocchi@polimi.it	
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Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Data Science and DevOps	Lecture	Prof. Willem-Jan van den Heuvel	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
cyprus-lectureFeb2018.pdf	Prof. Willem-Jan van den Heuvel

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	28/02/2018	Time:	11:00-11:15
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description
Smart Manufacturing

2. Attendees			
Name	Department/Division	E-mail	Phone
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Spyros Loizou, MSc Student	CUT / Cyprus	Sp.loizou@edu.cut.ac.cy	
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Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
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3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
Smart Manufacturing	Presentation	Michael Pingos, MSc Student Spyros Loizou, MSc Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by
SmartMan_Cut_StakeholdersEvent	Michael Pingos, MSc Student Spyros Loizou, MSc Student

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	28/02/2018	Time:	11:15-11:30

Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol
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1. Subject / Short Description

Smart Data Processing and Data Analytics Tool

2. Attendees

Name	Department/Division	E-mail	Phone
Prof. Luciano Baresi	POLIMI / Italy	luciano.baresi@polimi.it	
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Panayiotis Christodoulou, PhD	CUT / Cyprus	pan.christodoulou@edu.cut.ac.cy	
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Prof. Willem-Jan van den Heuvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content			
Topic	Type (lecture, discussion, ...)	Trainer	Time
Smart Data Processing and Data Analytics Tool	Presentation	Andreas Christoforou, PhD Student	

4. Pre-work/Preparation (documents/handouts, reading material, etc.)	
Description	Prepared by
Smart Services and Data Processing in Practice.pptx	Andreas Christoforou, PhD Student

Workpackage:	WP4. Automation of build, deployment and operation activities		
Date: (MM/DD/YYYY)	28/02/2018	Time:	11:30-12:00
Facilitator:	CUT	Location:	EE-CEID, 39, Saripolou & Socratous, Limassol

1. Subject / Short Description
Summary - Concluding remarks - Discussion

2. Attendees			
Name	Department/Division	E-mail	Phone
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Andreas Christoforou, PhD Student	CUT / Cyprus	ax.christoforou@edu.cut.ac.cy	
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Indika Priyantha, PhD	JADS / The Netherlands	pkumarawd@yahoo.com	
Prof. Willem Jan Van De Huvel	UvT / The Netherlands	w.jan@tillburguniversity.edu	

3. Training Content

Topic	Type (lecture, discussion, ...)	Trainer	Time
	Discussion		

4. Pre-work/Preparation (documents/handouts, reading material, etc.)

Description	Prepared by

5. Conclusions

In the context of Workpackage-4, a number of actions and activities were organized and performed aiming to transfer scientific knowledge to CUT members in the area of Automatic monitoring of service delivery, Cloud resource management and Decision support and/or automatic re-configuration.

Firstly, CUT members participated in a series of site visits in Milan, where researches from POLIMI delivered lectures related to research challenges in a number of topics, such as, microservices, efficient Big Data processing and DevOps strategies with social software engineering. Moreover, a comprehensive introduction on modeling social debt with FCMs model was performed. A new series of site visits in the Netherlands followed. Researches from CUT attended various lectures given by UvT members that covered a wide range of aspects and research topics on Smart Data Processing, Automation, Smart Manufacturing & Industry.

This series of site visits concluded in a 3-day workshop organized by CUT, where members from POLIMI and UvT delivered lectures and presentations to members of the CUT group, as well as to other researchers and students. Also, a project management meeting was conducted in which members from all partners discussed the progress of the project, as well as the obstacles and delays encountered thus far. On the last day of the workshop the 3rd Stakeholders Meeting and Workshop on Cloud Computing, Software Services and Smart Data Processing took place at CUT. Members from the CUT, POLIMI and UvT presented the DOSSIER-Cloud project and part of its work to a group of targeted local stakeholders and finally a discussion for collaboration between the DOSSIER-Cloud members and the local stakeholders followed.

In the context of an extension given to Workpackage-4, two more site visits were organised and performed by CUT members in Italy and the Netherlands. During the site visit in Italy, the main focus was on Automatic Resource Allocation on the Cloud and research collaboration. Similarly, during the site visit in the Netherlands presentations and discussions were mainly focused on Smart Manufacturing, Industry 4.0 and on defining the next steps for joint research activities.