



Mälardalen University
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Component Technologies - 7.5 hp - CDT401

PROJECT PLAN

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September 27, 2018

1 Introduction

This year in the module named Component Technologies, we have a project to realize. The aim of this project is to build an online repository containing software components. The repository is an online platform for controlling and managing components. By controlling and managing we introduce browsing of components, adding or removing them from the repository database, inspecting their content, downloading and all other functionalities proposed in the following sections of this paper.

Despite described aim of the project, the paper introduces project team members, their contact information and area of interest. Furthermore, the paper describes a type of communication between members and process of work into the team. In Activities section, each member has personal responsibilities in the project development process, considering estimated effort and time. Next section outlines the schedule of deliverables which includes artifacts to be delivered and time constraint to be considered. In the last section of this paper, we introduce risks and challenges concerning successful project delivery.

2 Organization

2.1 Project Manager

- Anton Roslund

2.2 Project Group

- Anton Roslund: ard15003@student.mdh.se
- Cécile Cayère: cce18001@student.mdh.se
- Milos Ojdanic: moc16001@student.mdh.se
- Stanislas Pedebearn: spn18013@student.mdh.se
- Vincenzo Stoico: vso18003@student.mdh.se

2.3 Steering Group

- Frank Lüders
- Filip Markovic

2.4 Organization and communication

We are using Slack for all our communication. Slack is a messaging platform for teams. With Slack we can create channels for different topics and send private messages.

We will use GitHub to host our code repository. Different components will be developed in different branches. When component is completed, it will be code reviewed and tested. The persons reviewing should not have been involved in the development of that component. When a component has passed review, it is merged into the master branch.

Regarding the diagrams, we will use MagicDraw. It is a modeling tool that allows us to make sequence diagram, component diagram and class diagram.

For document creation we will use Overleaf, since it allows for collaborative writing in L^AT_EX. Some documents and presentations will be created using Google Apps.

3 Working Hours

We have estimated that we have approximately 100 hours each to spend on the project, leaving 40 hours each to complete the assignments. Each member will report their working hours in a shared Google Apps sheet.

3.1 Planned Working Hours Per Person

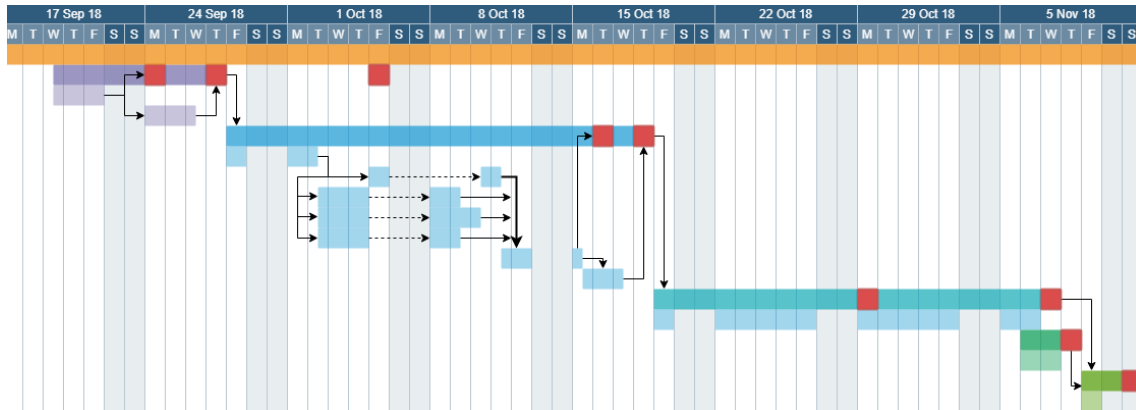
Member	W38	W39	W40	W41	W42	W43	W44	W45	Total
Anton	2	9	11	11	11	12	12	12	80
Cécile	2	9	11	11	11	12	12	12	80
Milos	2	9	11	11	11	12	12	12	80
Stanislas	2	9	11	11	11	12	12	12	80
Vincenzo	2	9	11	11	11	12	12	12	80

4 Activities

We have estimated that we have approximately 80.2 hours each to spend on the project, 2.2 hours per day, in total of 35 working day. Which leaves 40 hours each member to complete the assignments. We are 5 students working on the project, resulting in a total of 401 hours to distribute. In the first part of Gantt chart below we have listed our initial activities.

	Task Name	Duration	Start	End
	Component Repository Project	35 days	19.09.18	11.11.18
1	Project Plan	5 days	19.09.18	27.09.18
1.1	Project Plan Report	2.5 days	19.09.18	21.09.18
1.2	Project Plan Presentation	2.5 days	24.09.18	27.09.18
2	Project Design	22.5 days	28.09.18	18.10.18
2.1	Requirements Elicitation	2.5 days	28.09.18	02.10.18
2.1.1	Use Case Diagram	2 days	05.10.18	11.10.18
2.2	Sequence Diagram	4 days	02.10.18	09.10.18
2.3	Component Diagram	5 days	02.10.18	10.10.18
2.4	Class Diagram	4 days	02.10.18	09.10.18
2.5	Project Design Report	2.5 days	11.10.18	15.10.18
2.6	Project Design Presentation	2.5 days	15.10.18	17.10.18
3	Implementation	13 days	19.10.18	07.11.18
3.1	Implementation	13 days	19.10.18	05.11.18
4	Project Analysis	2 days	06.11.18	08.11.18
4.1	Project Analysis Report	2 days	06.11.18	07.11.18
5	Peer And Self Assessment	1 day	09.11.18	11.11.18
5.1	Peer And Self Assessment	1 day	09.11.18	09.11.18

In the second part of Gantt chart below we have listed our time scheduling.



Name of a task	Effort	Responsible
Project Plan	27.5 hours	Shared
Project Plan Presentation	27.5 hours	Shared
Requirements Elicitation	5.5 hours	Anton
Use Case Diagram	22 hours	Shared
Sequence Diagram	8.8 hours	Milos
Component Diagram	22 hours	Vincenzo & Cécile
Class Diagram	8.8 hours	Stanislas
Project Design Report	27.5 hours	Shared
Project Design Presentation	27.5 hours	Shared
Implementation	190 hours	Shared per component
Project Analysis Report	22 hours	Shared
Peer And Self Assessment	11 hours	Shared

5 Deliverables

Below is our deliverables listed together with their deadline. The dates in bold are hard deadlines specified in the course schedule. To keep up with the hard deadlines we have specified internal, soft deadlines.

- Project Plan : **2018-09-27**
- Project Plan Presentation : **2018-09-27**
- Project Design : **2018-10-18**
 - Requirements elicitation : 2018-10-02
 - Scenarios description : 2018-10-02
 - High level architectural design : 2018-10-12
 - Detailed design of components : 2018-10-16
- Project Design Presentation : **2018-10-18**
- Project Presentation : **2018-11-08**
- Project Analysis Report : **2018-11-08**

6 Assumptions and Constraints

6.1 Assumptions

The main risk of this project is failing to organize properly. Therefore, we planned our work well before we started coding. Thanks to project management tools (e.g. UML diagrams), we can anticipate the different tasks that we will have to fill.

There is also the risk of not being able to successfully complete the assignment or not understanding the subject correctly. The subsequent work allows us to manage this kind of problem. Regarding the misunderstanding of the subject, we can also ask our supervisors and our teacher to explain and redefine the subject.

To finish with assumptions, it's important to remember each people come from different countries. They maybe have different work methods, difficulties or abilities. The language can be also a problem for some peoples. So communication is an important key to avoid problems.

6.2 Constraints

First, we were originally a group of seven students. However, two students have already dropped the course. We are now five persons. Lack of people cause problems with the amount of work to be provided per person.

Also, we are not yet familiar with the technologies that we need to use for the project. This unfamiliarity makes it difficult to accurately estimate the effort needed for the different activities. This may cause delays in the deadlines.

Since we all take different courses our schedules overlap and it is hard to find time to work together.

7 Financial Plan

One person Hour: 1000 sek

Planned Effort: 400.1 Person Hours (PH)

Planned project cost: 400100 sek

Activity	Volume (PH)	Cost (SEK)
Project Plan	27.5	27500
Project Plan Presentation	27.5	27500
Requirements Elicitation	5.5	5500
Use Case Diagram	22	22000
Sequence Diagram	8.8	8800
Component Diagram	22	22000
Class Diagram	8.8	8800
Project Design Report	27.5	27500
Project Design Presentation	27.5	27500
Implementation	190	190000
Project Analysis Report	22	22000
Peer And Self Assessment	11	11000