

Group no. 1  
 Date 08/11/2018  
 Proj. mgr. Vladimir Djukanovic  
 E-mail Vdc16001@student.mdh.se

## Project Analysis Report

---

### Project Online Component Repository

#### DISTRIBUTION

##### Steering group:

Frank Lüders

##### Project group:

Vladimir Djukanovic

Cristian Capozucco

Oskar Palmgren

Aleksandar Matovic

Bastien Delbouys

Mohamed Abdi

#### CONTENTS

<b>1. Background and Objectives .....</b>	<b>2</b>
<b>2. Milestones .....</b>	<b>2</b>
<b>3. Project Results.....</b>	<b>3</b>
3.1 Work Products and Deliverables .....	3
<b>4. Project Experiences.....</b>	<b>4</b>
4.1 Positive Experiences .....	4
4.2 Improvement Possibilities.....	4
4.3 Work per Member.....	4
<b>5. Metrics .....</b>	<b>5</b>
5.1 Milestone Metrics .....	5
5.2 Effort Metrics.....	5

## 1. Background and Objectives

In this section, we will outline the major goals of the project and summarize the achieved results. The system is divided into two main segments. It provides functions for the users throughout a web application, on the other hand, the administrator is authorized to access the system and manage its functions throughout the Windows standalone application. Having that in mind, our principal goals have to be satisfying for both types of users. In the design description document, section 4. (i.e. Software Architecture) we stated what specifically the system supposed to perform. It is also vital to emphasize that for the software architecture model we used: **model-view-controller** (this model is explained in the design document (section 4. Software architecture))

Furthermore, we divide the major goals of the project into two group.

### 1. Administrator functions

- Add components to the repository
- Remove components from the repository
- Edit components which are fetched from the online component repository.
- Inspect Classes and Interfaces
- Download components obtain from the online repository.

### 2. User functions

- Browse and search
- Inspect classes and interfaces
- Download components

Function stated above has been presented in the use case diagram. Hence, all the functions introduced in the project description document run smoothly and without any difficulties.

To summarize, our aim in this project was an implementation of an online component repository with a separate function for the user and the administrator. Therefore, we achieved all major function stated above with also handling:

- Persistent Data
- Synchronization and Timing
- Start-Up and Shut-Down prevention
- Error handling

## 2. Milestones

Id	Milestone Description	Responsible Initials	Finished week	
			Plan	Actual
1	Project plan agreement		38	38
2	Write project plan		38	38
3	Project plan presentation		38	38
4	UML diagram design		39	39
5	UI agreement		39	40
6	Sketch UI		40	40
7	Write design document (first version)		41	41
8	Initial implementation of C# application		41	42
9	Testing		41	42
10	Write design document (final version)		42	43
11	Further implementation of C# application		42	43
12	Testing		43	43
13	Write final report		44	44

## 3. Project Results

### 3.1 Work Products and Deliverables

All deliverables including documents and applications can be found on GitHub on the following link:  
[github.com/vladodjuka/cdt401-online-component-repository](https://github.com/vladodjuka/cdt401-online-component-repository)

To	Output	Planned week	Promised week	Deviation +/-	Delivered week	Rem
Steering Group	Project Plan	38	38	+/- 0	38	
Steering Group	Design document	41	41	+/- 0	41	
Steering Group	Initial implementation	41	42	+1	42	
Steering Group	Complete implementation	42	43	+1	43	
Steering Group	Project analysis	44	44	+/- 0	44	
Steering Group	Peer and self-assessment	44	44	+/- 0	44	

Beside small oscillation in delivering the initial and complete implementation part of the project (delayed by one week) that was caused by a lot of unpredicted changes in the design, everything was delivered on time (as planned).

#### 4. Project Experiences

##### 4.1 Positive Experiences

The project work has gone quite well. One thing that really worked out well is the communication via Microsoft Teams. This tool has been used for communication and sharing of documents and have been very useful during the project.

Another good experience was the implementation that, after the design, was not so hard. Only some small revisions of the design had to be done when the code was done.

##### 4.2 Improvement Possibilities

There are some things that could have been better. First the group size was too big. So, there was not so much work to be done for each member.

Another thing that could have been better was the initial requirements. They felt very unclear and open for interpretation. This could have been improved by having a requirement specification included in the project planning phase.

##### 4.3 Work per Member

Member	W38	W39	W40	W41	W42	W43	W44	Total
<i>Planned working time per member</i>	<i>4</i>	<i>12</i>	<i>12</i>	<i>10</i>	<i>18</i>	<i>15</i>	<i>9</i>	<i>80</i>
Vladimir Djukanovic	5 (+1)	15 (+3)	14 (+2)	12 (+2)	20 (+2)	14 (-1)	9	89 (+9)
Cristian Capozucco	5 (+1)	13 (+1)	12	12 (+2)	18	15	9	85 (+5)
Oskar Palmgren	4	12	12	10	18	15	9	80
Aleksandar Matovic	4	12	12	10	18	15	9	80
Bastien Delbouys	5 (+1)	13 (+1)	11 (-2)	10	19 (+1)	14 (-1)	9	80

Mohamed Abdi	-	-	-	-	-	-	-	-
<b>Total</b>	<b>23</b>	<b>65</b>	<b>61</b>	<b>54</b>	<b>93</b>	<b>73</b>	<b>45</b>	<b>414</b>
	(+3)	(+5)		(+4)	(+3)	(-2)		(+19)

Legend: *l* = on leave (approved by the group), *s* = sick

## 5. Metrics

### 5.1 Milestone Metrics

Total for the project:

Completed as planned or earlier	Total	Timeliness
8	13	61%

### 5.2 Effort Metrics

	Actual effort	Planned effort	Deviation (%)
Project management	14	17	-17
Configuration management	4	5	-20
Requirements management	16	14	14
Software design	24	24	0
Software coding	92	90	2
Software testing	41	40	2
Other activities	56	56	0
<b>Total:</b>	<b>247</b>	<b>246</b>	<b>0.4</b>

Deviation% =  $100 * (\text{Actual} - \text{Planned}) / \text{Planned}$

Estimation accuracy% =  $100 * (1 - \text{abs}(\text{Actual} - \text{Planned}) / \text{Actual})$

Effort estimation accuracy = <99.59>%