Semester Project: Single User System

Project Management System

Lia Cicati, 304134

Rickie Nielsen, 293624

Loredana Cicati, 304135

Siyu Xia, 305554

Software Technology Engineering

[Semester 1]

Mona Wendel Anderson

Steffen Vissing Andersen

[30/09/2020]

September 2020

Table of content

1. Background description

A project management system represents a means of handling a project by planning, organizing and managing its different required aspects such as registering, keeping track of tasks, stimulating productivity, improving project transparency and providing a clear vision to the team. (Project Management System: Definition & Example, 2017)

Not having a Project Management system is not optimal because it can lead to project setbacks. Companies that are not yet utilizing a Project Management system are likely to do more work while gaining less profit because of the time wasted on doing little tasks such as gathering project data and reports. "55% of organizations do not have access to real-time project Key Performance Indicators with nearly 50% spending 1 or more days manually collating project reports. "(UK: Wellingtone PPM, 2018)

Companies have goals to be achieved, which can be used to estimate their level of success and growth. To reach them, a specific amount of tasks must be accomplished. This can be done through effective project management. "76% of high-performing organizations use strategic initiatives to meet business intent and original project goals." (Project Management Institute, 2014)

A small company, Colour IT, which is developing and implementing IT systems mostly for private customers has no project management system to handle tasks and time for their IT projects. As for the current procedure regarding IT projects, the company starts with an interview whose main purpose is to understand the customer's world and get an idea of the system that should be developed.

After the interview, a list of requirements is formulated in form of user stories which is a functional requirement made from a user's point of view describing who wants this feature, what is the feature and why is it relevant. This is done by using case modeling for the full system following a waterfall approach analyzing the full system first where the company splits the projects into phases such as: analysis, design, implementation and testing. However, Colour IT normally chooses to use an iterative process where the feedback from previous phases is used to work on some possible detected errors and therefore the requirements and use cases for the full system are not made in the first iteration.

The next step in the procedure is that the company has an extra customer meeting or by mail gets a confirmation of the customer's needs. Regardless of the order used, the company ends up having a document with a list of requirements, and every requirement is split up into tasks. Every task has a responsible team member, which always is one of the members working on the task. Every day each team member reports to the person who handles the whole process - the Scrum master, on which task they are working and if the task has ended or not.

In this way, it is seen that the current procedure is not effective as everything is registered manually. For this reason, the company wants to implement a system that can easily establish a hierarchy of tasks for effective and efficient completion along with improving the speed of their projects and service delivery.

For Colour IT there are also certain demands such as adding new requirements at any time as well as removing and reordering them, using files for persistence instead of database and accessing the system with no login. In addition, a web access to customers without a registration account. On this website, the customers may find information about projects like description and all the requirements with a status.

To summarise, using a Project Management system gives the chance to always be able to see the tasks that the team is working on, which team members are involved and how much time they spend on it.

2. Problem Statement

Main problem:

The progress of the projects in the company currently cannot be monitored on any occasion, for example how the team members are performing on their assigned tasks or the precise time spent on completing the work. This results in being unable to guarantee the efficiency of the staff as well as the quality of completed tasks.

Sub-problems:

1. Which data is necessary to report performance on every task?

2. What are the steps that the scrum master uses to access the data?

3. What are the steps to register the data in the system?

3. Definition of purpose

The purpose is to increase the company's efficiency and productivity by making a Project Management system that can handle and register tasks, support the process along the entire project life cycle, bring quality output at every stage and enable easy access for both customers and team members.

4. Delimitation

Due to the scope of the project some problems will not be solved:

1) We will not require a registration account to log in the system

2) We will not use a database system to store the information

3) We will not ask the customer to log in on the website

5. Methodology
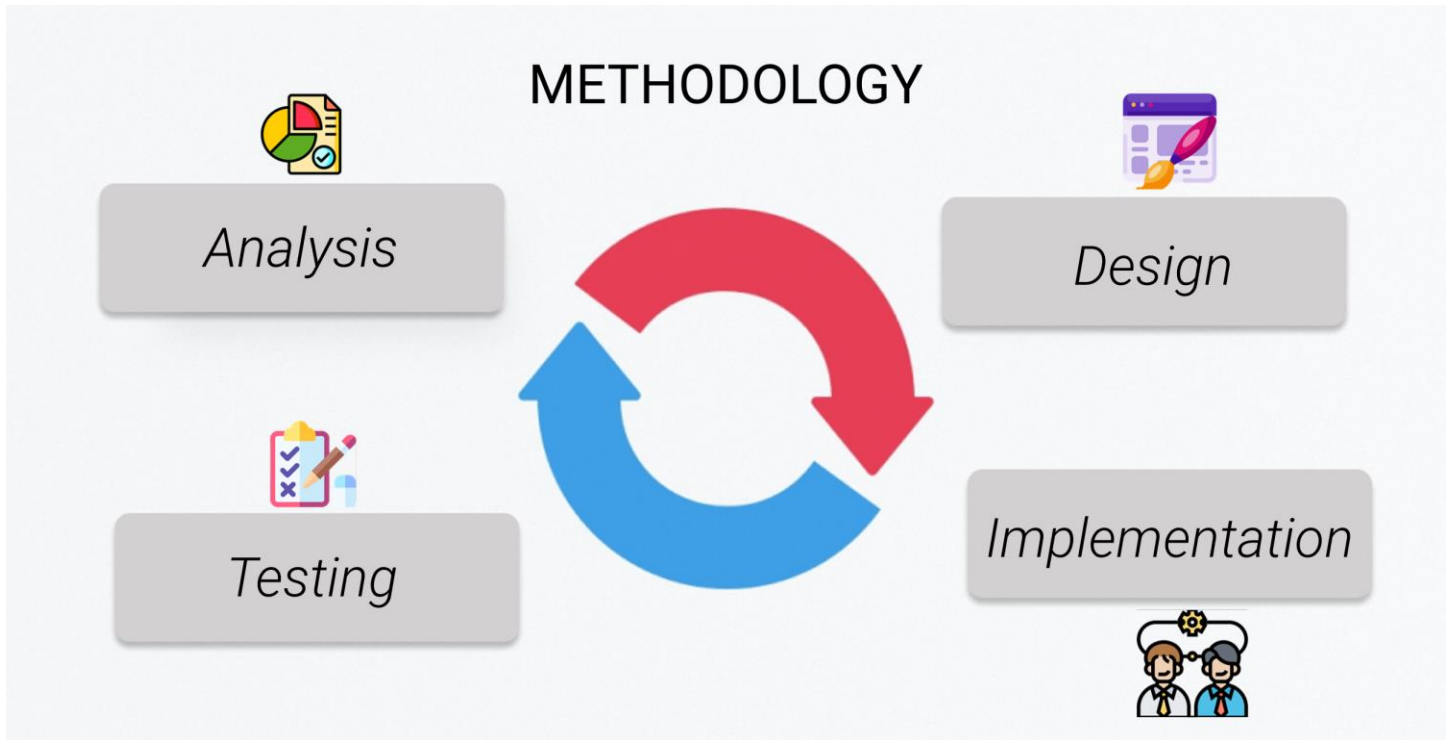
The work towards this project will be fully concentrated on using both waterfall and iterative approach.

Using waterfall approach will help to split the project into phases such as:

➤ Analysis
Project scope, stakeholder expectations, the research made by all team members

➤ Design
Design specifications are created, studied, and evaluated to understand what the final product should look like, along with the actions needed to get there

➤ Implementation
Taking the information from the previous stage and create a functional product by coding.

➤ Testing
Making sure everything is working as planned

The iterative approach will provide feedback paths from every phase to its preceding phases. When errors will be detected at some later phase, the feedback paths will allow the phases to be reworked.

6. Time schedule

WEEK	SUBJECT
38	**Project planning start**: Customer Interview
39	Project description start
40	Project description hand-in
41	Project description feedback and revision
42	
43	**Analysis start**: Requirements and use cases
44	Requirements and use cases feedback
45	Activity diagram and domain model
46	Analysis sessions
47	**Design start**: Class diagram and sequence diagrams
48	Design work
49	**Implementation start**
50	Work on SEP
51	Work on SEP
51	Deadline : 12/18/2020 1 PM

IT-SEP1   Semester Project: Single User System   5 (ECTS)
Estimated time per student working on the project:

1 ECTS = 27.5 hours per student
5 ECTS = 137.5 hours per student

Total: 137.5 hours × 4 (team members) = 550 hours

7. Risk Assessment

Risks	Likelihood Scale: 1-5 5 = high risk	Severity Scale: 1-5 5 = high risk	Product of likelihood and severity	Risk mitigation e.g. Preventive- & Responsive actions	Identifiers	Responsible
The customer may change his mind regarding some implementations	3	5	15	Set up an extra meeting to make sure we are on the same page	Going over the full analysis and identifying some misunderstandings	Loredana Cicati
Not fulfilling the customers real needs	3	4	12	Organize regular calls or meetings with the customer in order to show the progress and get a confirmation regarding the work process	The customer is not satisfied with the product	Lia Cicati
Not finishing the functional requirements asked by the customer	2	3	6	Finding methods to organize the work such that it meets the actual needs. Prioritize requirements and work on higher priority requirements first. If not all requirements are met then only lower priority items are missing	Spending too much time on non-functional requirements	Rickie Nielsen

8. Sources of Information

- Project Management System: Definition & Example.,2017. Available at:
  < https://study.com/academy/lesson/project-management-system-definition-example.html>
  [Accessed 28 September 2020].
- UK: Wellingtone PPM, 2018. The State of Project Management. [pdf, pp.12] Available at:
  <https://www.wellingtone.co.uk/wp-content/uploads/2018/05/The-State-of-Project-
  Management-Survey-2018-FINAL.pdf > [Accessed 22 September 2020].
- Project Management Institute, 2014. The High Cost of Low Performance. [pdf, pp.9]
  Available at:<pmi.org//media/pmi/documents/public/pdf/learning/thought-
  leadership/pulse/pulse-of-the-profession-2014.pdf> Accessed 22 September 2020]
- Finances Online.Why Is Project Management Software Useful: Benefits, Importance and
  Features. [online] Available at: <https://financesonline.com/project-management-software-
  useful-benefits-importance-features> [Accessed 22 September 2020])
- Finances Online.Why Is Project Management Software Useful: Benefits, Importance and
  Features. [online] Available at: <https://financesonline.com/project-management-software-
  useful-benefits-importance-features> [Accessed 22 September 2020])
- Tony Gaddis, 2015. Starting Out with Java: Early Objects, fifth ed. PEARSON.
- Jon Duckett, 2011. *HTML & CSS Design and build websites*, John Wiley & Sons, Inc.
- Jon Duckett, 2014. *JAVASCRIPT & JQUERY Interactive front-end web development*, John
  Wiley & Sons, Inc.
- Turquoise, I., 2020. Customer Interview. [online] Available at:
  https://via.itslearning.com/LearningToolElement/ViewLearningToolElement.aspx?LearningT
  oolElementId=1259639 [Accessed 22 September 2020].