# Project plan

Company 4

September 2021

| Versions | | |
|---|---|---|
| Version | Date | Change |
| 0.0 | 2021-09-26 | First version of the project plan finished in conjunction with tollgate meeting |
| 0.1 | 2021-10-6 | Transferred word/excel documents to Overleaf. Added project description. |
| 0.2 | 2021-10-8 | Added project roles and organizational structure |

# Contents

# 1 Project Description

This document will give an overview of company 4´s continuous work with the software project in the course TDDC88 Software Engineering

## 1.1 Background to the project

In this project a website will be created towards Region Östergötland with supervision from several teachers. In the current situation personal at region Östergötland are using multiple systems to keep track of their organization at the emergency room. This leads to double documentation and runs the potential of having serious consequences since important data can be easily missed, or hard to retain from the current system. Currently there has not been implemented a software system at the emergency department that can display the most important information for the personal. Instead, they are using a combination of paper documentation in form of a paper emergency journal in combination with several separate software systems. The customer wants us to create product(website) that show the most important information needed at the emergency department in a hospital.

## 1.2 Relevant constraints

During the project our main constraint will be the time management. We will only be able to put in 160 hours /person into this project. Another relevant constraint that may affect our project is the possibility to get feedback from the customer. Constant feedback from the customer will be major factor, and since this is a side project for the customer, they may prioritize their time differently. The last identified constraint is the scope of the project. Since time is a scarce resource, implementing every function that the customer wishes for will not be possible.

## 1.3 Project Goal

The goal of the project is to create an organizational structure where we have the possibility to fulfill our customers needs.

## 1.4 Start and end date

The projected will be started during week 36 and ended during week 46.

## 2 Risk plan

The risk plan is used to identify and classify the risks within the project. The plan presents all the risks we have identified so far and also presents the action plan to minimize the inpact of these risks.

| Risk classification | |
|---|---|
| Category | Risk factor |
| Critical | 16-25 |
| Major | 9-15 |
| Significant | 4-8 |
| Insignificant | 1-3 |

| No. | Risk | Plan |
|---|---|---|
| 1. | Poor internal & external communication | Accept risk: Set up a **communication matrix** for external communication. Use **organizational mapping map** for internal communication aid. |
| 2. | Lack of knowledge | Accept risk: Set up clear guidelines for how to educate team members. Use **guidelines** found under meeting CEO -> project plan -> project organization -> education- > education plan |
| 3. | Project member leaves company | Make sure that we have good working environment. Work in **cross functional teams** & **distribute** tasks to minimize the consequence. |
| 4. | Inefficient usage of time | Always have a clear **agenda** for large meetings. Meet in person when possible, for easier communication |
| 5. | Unreasonable demands from customer | Have **constant** and **honest** communication with the customer. |
| 6. | Conflict within the group | Lift potential **conflicts** early. Contact closest manager or the Line manager if help is needed. |
| 7. | Uneven work distribution | Take personal responsibility of contacting manager in case of work overload/underload. |
| 8. | Trouble implementing cross functional teams | Create and follow a clear organizational structure, that implements cross functional teams |

Figure 1: Identified risks 1 - 8

| | | |
|---|---|---|
| 9. | Missing important deadlines | Each manager and leader are responsible for adding deadlines to calendar document found in the General channel. |
| 10. | Unclear responsibility | Clear communication within the group. Use our **scrum meetings** to clear up confusions. |
| 11. | Sickness | Be flexible and work from home if needed. (Use teams) |
| 12. | Functional demands are not met | To lower the risk of functional needs not being met these should be included in our **Kanban system**(Git). A **lecture** will also be held during week 39 |
| 13. | Trouble documenting personal contributions to group | Make sure to update the **time report** on a weekly basis. Alos keep track of your own tasks that have been performed and include these in your own individual report |
| 14. | Version control trouble | Use Git. Also create **education plan** for usage of Git. |
| 15. | Unrealistic user requirements | Pick and prioritize user requirements in **collaboration** with development team. |
| 16. | Tests can't capture the issues | Create a clear **test plan**, and work in cross functional teams with development and testing. |

Figure 2: Identified risks 9 - 16

| No. | Risk | Plan |
|---|---|---|
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Figure 3: Action plan for identified risks 1 - 8

| | | |
|---|---|---|
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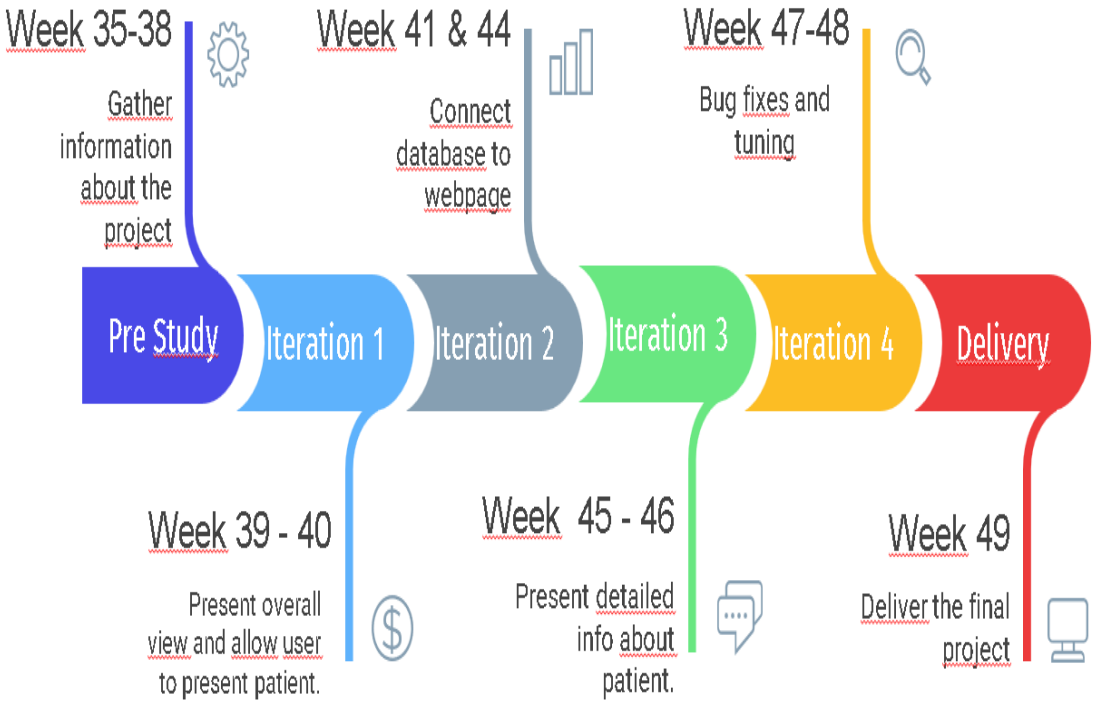
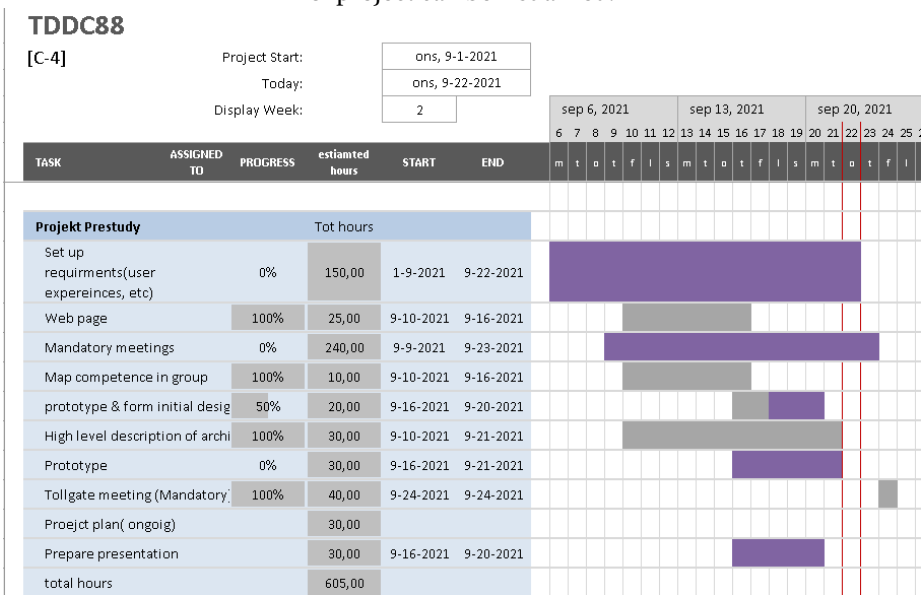
Figure 4: Action plan for identified risks 9 - 16

# 3 Timeline


Week 35-38
Gather information about the project
Week 41 & 44
Connect database to webpage
Week 47-48
Bug fixes and tuning
Pre Study
Iteration 1
Iteration 2
Iteration 3
Iteration 4
Delivery
Week 39 - 40
Present overall view and allow user to present patient.
Week 45 - 46
Present detailed info about patient.
Week 49
Deliver the final project

# 4 Timeplan

In the pictures below an estimation of the time and resources needed for each part of project can be visualized.



TDDC88

[C-4]

Project Start: ons, 9-1-2021

Today: ons, 9-22-2021

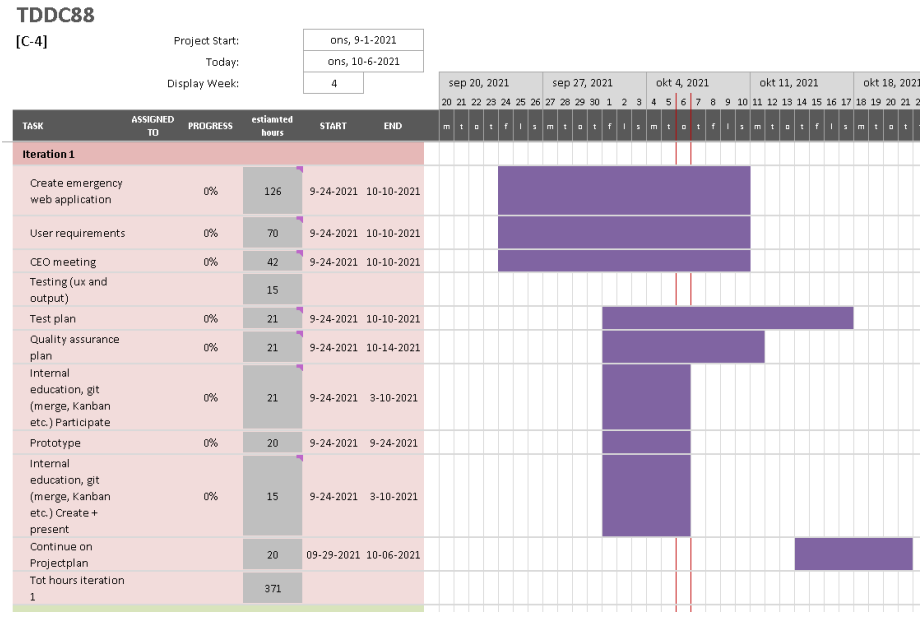
Display Week: 2

sep 6, 2021 | sep 13, 2021 | sep 20, 2021

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

| TASK | ASSIGNED TO | PROGRESS | estiamted hours | START | END |
|---|---|---|---|---|---|
| **Projekt Prestudy** | | | Tot hours | | |
| Set up requirments(user expereinces, etc) | | 0% | 150,00 | 1-9-2021 | 9-22-2021 |
| Web page | | 100% | 25,00 | 9-10-2021 | 9-16-2021 |
| Mandatory meetings | | 0% | 240,00 | 9-9-2021 | 9-23-2021 |
| Map competence in group | | 100% | 10,00 | 9-10-2021 | 9-16-2021 |
| prototype & form initial desig | | 50% | 20,00 | 9-16-2021 | 9-20-2021 |
| High level description of archi | | 100% | 30,00 | 9-10-2021 | 9-21-2021 |
| Prototype | | 0% | 30,00 | 9-16-2021 | 9-21-2021 |
| Tollgate meeting (Mandatory | | 100% | 40,00 | 9-24-2021 | 9-24-2021 |
| Proejct plan( ongoig) | | | 30,00 | | |
| Prepare presentation | | | 30,00 | 9-16-2021 | 9-20-2021 |
| total hours | | | 605,00 | | |

## 4.1 Iteration 1



TDDC88

[C-4]

Project Start: ons, 9-1-2021

Today: ons, 10-6-2021

Display Week: 4

sep 20, 2021 | sep 27, 2021 | okt 4, 2021 | okt 11, 2021 | okt 18, 2021

20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

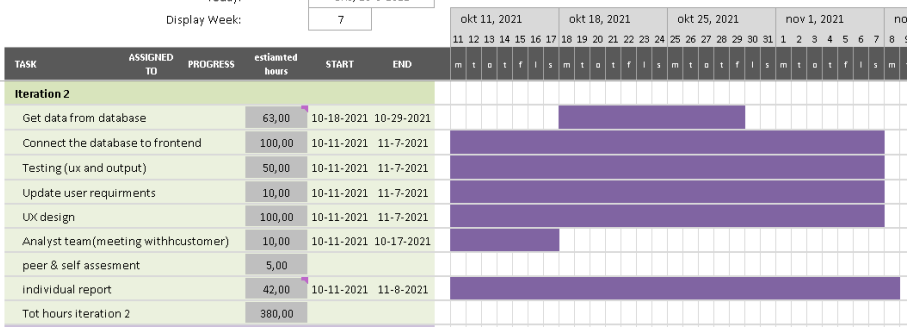
| TASK | ASSIGNED TO | PROGRESS | estiamted hours | START | END |
|---|---|---|---|---|---|
| **Iteration 1** | | | | | |
| Create emergency web application | | 0% | 126 | 9-24-2021 | 10-10-2021 |
| User requirements | | 0% | 70 | 9-24-2021 | 10-10-2021 |
| CEO meeting | | 0% | 42 | 9-24-2021 | 10-10-2021 |
| Testing (ux and output) | | | 15 | | |
| Test plan | | 0% | 21 | 9-24-2021 | 10-10-2021 |
| Quality assurance plan | | 0% | 21 | 9-24-2021 | 10-14-2021 |
| Internal education, git (merge, Kanban etc.) Participate | | 0% | 21 | 9-24-2021 | 3-10-2021 |
| Prototype | | 0% | 20 | 9-24-2021 | 9-24-2021 |
| Internal education, git (merge, Kanban etc.) Create + present | | 0% | 15 | 9-24-2021 | 3-10-2021 |
| Continue on Projectplan | | | 20 | 09-29-2021 | 10-06-2021 |
| Tot hours iteration 1 | | | 371 | | |

## 4.2 Iteration 2

**TDDC88**

[C-4]

Project Start: ons, 9-1-2021
Today: ons, 10-6-2021
Display Week: 7



| TASK | ASSIGNED TO | PROGRESS | estiamted hours | START | END |
|---|---|---|---|---|---|
| **Iteration 2** | | | | | |
| Get data from database | | | 63,00 | 10-18-2021 | 10-29-2021 |
| Connect the database to frontend | | | 100,00 | 10-11-2021 | 11-7-2021 |
| Testing (ux and output) | | | 50,00 | 10-11-2021 | 11-7-2021 |
| Update user requirments | | | 10,00 | 10-11-2021 | 11-7-2021 |
| UX design | | | 100,00 | 10-11-2021 | 11-7-2021 |
| Analyst team(meeting withhcustomer) | | | 10,00 | 10-11-2021 | 10-17-2021 |
| peer & self assesment | | | 5,00 | | |
| individual report | | | 42,00 | 10-11-2021 | 11-8-2021 |
| Tot hours iteration 2 | | | 380,00 | | |

After the first peer & self assessment(October 18) the earlier work will be summarized and the total amount of hours spent during the project so far will be counted. After figuring out how many hours we have left as a group iteration 3 and 4 will be planned.

# 5 Project organization

This section will give an insight in how the company is structured and how we plan to implement cross functional teams within the company.

## 5.1 Cross-functional teams

In this section our cross functional team approach during the development of the product. This description is a template on how we plan to work cross functional but the actual implementation may vary depending on the workload and what needs to be developed. The management layer will consist of Project Leader (PL), Process Manager (PM) and Line Manager(LM). Their responsibility will be to make sure that information flows throught the company, make strategic decisions regarding working hours and time schedule. The next level is Devolepment Team Managment which consists of Development Manager (DM) and Configuration Manager (CM). This layer's responsibility is to make sure that the version control system, GitLab, is used and maintained properly as well support the User Story teams in code and development matters. We will also have an Analyst & Architecture layer, which consists of an Architect (Arc) the lead analyst (LA) as well as three analysts (A). This group will support the User Story teams in requirement and architecture issues. There will also be a Back-end & Data team consisting of Two developers (Dev) and a tester. This team's main responsibility is to provide the data for the other teams in an efficient and structured way. There will also be two User Story teams, each consisting of two developers, a tester and a UX-designer. These teams will work with one User Story each, which will proceed the development process.

With this structure of the organization we will be able to access each team's knowledge in an efficient way. A visual representation of this structure is found in Figure 5.

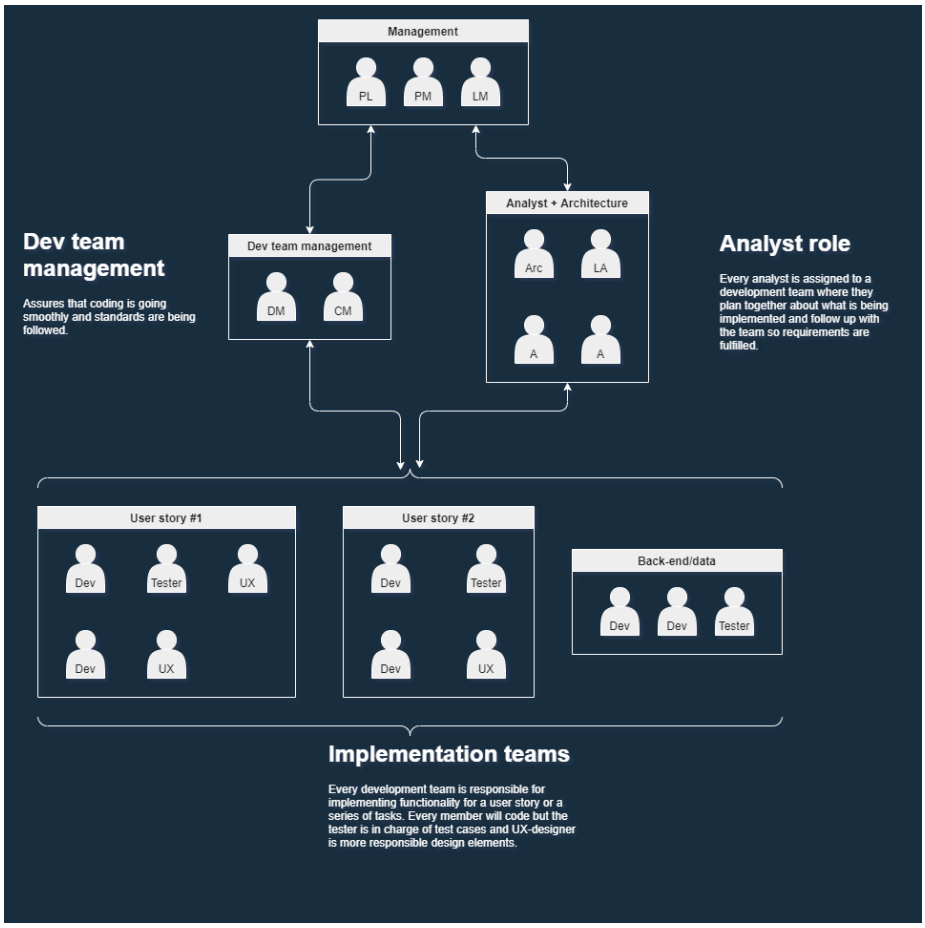



Figure 5: Cross functional team implementation

| Roles | Appointed |
|---|---|
| Project manager | Marcus Vidgren |
| Strategic product manager | Elin Linder |
| Process manager | Marcus Alvebro |
| Line manager | Viktor Storsved |
| Configuration manager | Martin Jonson |
| Product &<br>Sales manager | Elin Linder |
| Research & Development<br>manager | Philip Nylén |
| Lead Analyst | Beatrice Forsberg |
| Analyst | Elin Linder<br>Gustav Gath<br>Linus Bäckbro Kuusisto |
| Data Scientist | Isak Berntsson<br>Nikil Johnny Kunnappallil |
| Architect | Hugo Hallstensson |
| UX designer | Fredrik Olsson<br>John Palmqvist<br>Gustav Gath |
| Developer | David Råsberg<br>John Palmqvist<br>Nikil Johny<br>Isak Berntsson<br>Philip Löfgren<br>Erik Jareman |
| Integrator | Erik Jareman |
| Test Leader | Gregor Öster |
| Tester | Elsa Salomonsson<br>Lukas Lagerfors |
| Quality coordinator | Lukas Lagerfors<br>Elsa Salomonsson |
| Deployment manager | Hugo Hallstensson<br>Nikil Johny |
| Technical Writer | Victor Palmlund |

Table 1: An overview company roles