**[Title]**

**[Name(s) of student(s), student number(s)]**

**Software Technology Engineering**

**[Semester]**

**[Date]**

Version: May, 2019

**Table of content**

[Preface iii](#_Toc19634739)

[List of figures and tables iv](#_Toc19634740)

[1. Background Description 1](#_Toc19634741)

[2. Problem Statement 2](#_Toc19634742)

[4. Definition of purpose 4](#_Toc19634743)

[4. Delimitation 5](#_Toc19634744)

[5. Methodology 6](#_Toc19634745)

[6. Time schedule 7](#_Toc19634746)

[7. Risk assessment 8](#_Toc19634747)

[8. Sources of Information 9](#_Toc19634748)

Appendices (including Group Contract)

# Preface

This section is omitted in Software Technology Engineering Project Descriptions. Delete this section.

# List of figures and tables

This section is omitted in Software Technology Engineering Project Descriptions. Delete this section.

# Background Description

The background description delivers the frame for understanding the project and is an overall introduction to the specific problem domain. The purpose of the background description is to supply information that will enable readers who are unfamiliar with the project and the problem to understand your project.

In this section you will both deliver background information about the potential company and end-users, and more importantly, the specific part of the problem domain where the problem exists. You may describe current work procedures, what end-users are doing now, what they are not able to do and why this is not optimal.

You may choose to supplement this section with a description of current solutions available on the market, and why are they not sufficient.

It is not sufficient that you personally think that the project is “exciting to work on”; it must as a minimum have some kind of professional or academic relevance.

Your target audience is both your supervisor as well as readers without technical knowledge, e.g. executives and people in the problem domain.

**Do not mention solution and remember to state valid and reliable references.**

Checklist

* The background description gives a good understanding of the context of the project
* It is clear why you choose to work with the topic in question (I.e. why is the project relevant?)
* It is reflected in the background description that the problem domain has been properly analyzed
* You apply formal language & include references
* You have taken the target audience into consideration
* You do not focus on solutions

# Problem Statement

A good problem statement sets the stage for and guides a subsequent analysis. It should be brief, focused, solvable within the given timeframe andrelevant for the project.

In this section, you identify one main problem and several sub problems stated as questions. The questions should presume knowledge, which you do not possess yet, i.e. you must learn from it.

All problems and questions must arise from the background description. Thus, you cannot introduce problems or challenges that are not already explained in the background description.

*“It is important to note that the problem statement does not define the solution or methods of reaching the solution. The problem statement simply recognizes the gap between the problem and goal states. It can be said that, “a problem well stated is half solved.” However, there are often multiple, viable solutions to a problem. Only after the problem statement is written and agreed upon should the solution(s) be discussed, and the resulting course of action determined” (REF???)*

Question example

**Main problem**

Fishermen are losing their gear and equipment without being able to report the loss and position making it difficult to find.

The following sub-questions are formulated to get a better understanding of the main problem:

1. Which data is necessary to report lost equipment?
2. Who are the relevant recipients of reports?
3. Which type of reports must be created for different end users?
4. Which sea locations are relevant?
5. What type of users will report lost equipment?

Other examples of main problems:

1. The remote air traffic controller is currently having difficulties identifying and managing grounded incoming and outbound aircrafts. This leads to a too high number of accidents.
2. The workflow of customers ordering with the waiters who tell the chefs is currently unstructured and inefficient. This results in customers waiting a long time for their food
3. Sprogcenter Midt would like a social collaborative teaching tool, which should aid language acquisition.

Checklist

* The main problem is stated as an overall statement
* Your questions can be traced to the background description
* The questions are presented in a concise manner, i.e. bullet point format
* The questions are focused and relevant
* The questions are not technical or solution-oriented
* You do not already know the answers to the questions
* You cannot answer your questions with yes or no

# Definition of purpose

The purpose describes the overall motivation for the project and lies within the frame of the problem statement. A well-defined purpose can be used for judging the relevance of the outcome throughout the project.

Write your purpose in one sentence in a concise and precise manner.

*Describe the overall goal and benefit/why of the project*

Examples:

1. The purpose is to help people responsible for managing reports regarding lost fishermen’s equipment giving the possibility to the fishermen to report the derelict fishing gear, and the government and volunteers the chance to retrieve it from the Danish seas.

Other examples of purpose:

1. The purpose is to help the remote air traffic controller identify and manage grounded incoming and outbound aircrafts to avoid accidents
2. The purpose is to provide a more convenient way to place an order thereby easing the workload of the waiters and chefs in a restaurant
3. The purpose is to help Sprogcenter Midt provide an improved social collaborative teaching tool with the aim of aiding language acquisition and comprehension and thus building the lexical competence of the students

Checklist

* The purpose is well defined and possible to pursue
* It is a single sentence that does not exceed more than a few lines
* The benefit is clearly stated
* It is a natural continuation of the background description and problem statement

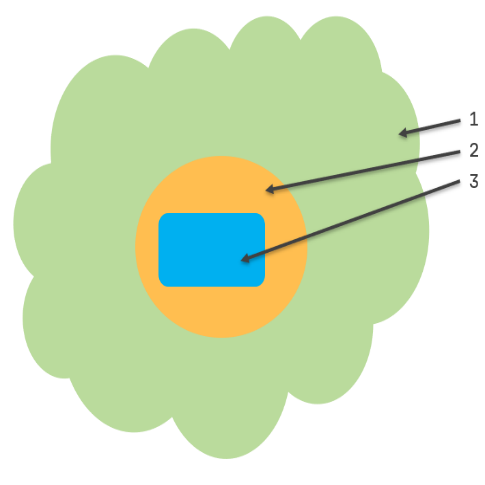
# Delimitation

In this section, you describe what you will **not** include in your project, if relevant. You can only delimit what has been covered in the Background Description and Problem Statement.

Delimitations are non-technical.

*Example*:

1. We will not include seas not marked as Danish
2. We will not include economics and billing in our restaurant ordering system

1) What is described in the Background Description section  
2) What is stated as the problem, but will be delimited, and will not be included in the project  
3) What the project will contain

**Checklist**

* The delimitations are based on the problem statement
* The delimitations are relevant, and you have good reasons to include them
* You are not trying to mark all the relevant and difficult problems of the project as delimitations.

# Methodology

Here, you describe the software development process that you have planned to use in the project. Examples: Waterfall, Kanban, Scrum. Explain how you will use it.

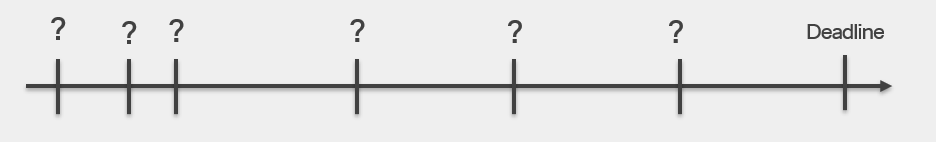
This replaces the section Choice of Models and Methods from the Engineering Project Description Guidelines.

# Time schedule

In this section, you will insert your timeline. Indicate relevant milestones and final deadline for the project. The milestones may depend on your choice of methodology. Remember to allocate time for report writing.

Also, calculate how many hours you expect to spend on the project in total. The expected workload is 27.5 hours per ECTS per student.

Example



# Risk assessment

Fill in below table with the risks you see as most likely for your project. Risks should be relevant for this specific project and should not be related to time management, illness, lack of motivation, force majeure, etc.

Remember to write the name of one individual group member in the Responsible column, not the whole group. This person is mainly responsible for keeping track, not actually mitigating the risk.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| It is not possible to get in contact with the Government | 4 | 5 | 20 | Set up a proxy government stakeholder | No response on mail, phone, etc. | John Doe |
| Unable to detect location of lost equipment | 2 | 2 | 4 | Analysis and test of location tracking devices | Equipment does not have correct location data | Jane Doe |
|  |  |  |  |  |  |  |

Remember to focus on the risks with the highest score in the product of likelihood and severity.

# Sources of Information

Note: Use the standard reference method: Harvard Anglia. A very good reference tool is Mendeley (Mendeley.com 2016), ask VIA Library if you need help. You may include sources that you have not used yet but expect to use.

Example

Banger, D., 2014. A Basic Non-Functional Requirements Checklist « Thoughts from the Systems front line.... Available at: https://dalbanger.wordpress.com/2014/01/08/a-basic-non-functional-requirements-checklist/ [Accessed January 31, 2017].

Business Analyst Learnings, 2013. MoSCoW : Requirements Prioritization Technique — Business Analyst Learnings. , pp.1–5. Available at: https://businessanalystlearnings.com/ba-techniques/2013/3/5/moscow-technique-requirements-prioritization [Accessed January 31, 2017].

Dawson, C.W., 2009. *Projects in Computing and Information Systems*, Available at: http://www.sentimentaltoday.net/National\_Academy\_Press/0321263553.Addison.Wesley.Publishing.Company.Projects.in.Computing.and.Information.Systems.A.Students.Guide.Jun.2005.pdf.

IEEE Computer Society, 2008. *IEEE Std 829-2008, IEEE Standard for Software and System Test Documentation*,

Larman, C., 2004. *Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development*,

Mendeley.com, 2016. Homepage | Mendeley. Available at: https://www.mendeley.com/ [Accessed February 2, 2017].

Checklist

* There are no unsupported arguments in the project description
* There are no missing references, which should be included to avoid plagiarism
* The Harvard Anglia reference system is used

**Appendices**

The purpose of your appendices is to provide extra information to the expert reader. List the appendices in order of mention. Include as a minimum your signed Group Contract.