# Instructions and template to the practical work documentation

**Cover page** (not necessarily page number):

* Name of the document
* Group number
* Group member information (names, student numbers, email addresses).

**Version history** (page 1):

* Version 0.1 and forward: working versions
* Version 1.0 first phase final version
* Version 1.1 and forward: working versions
* Version 2.0 second phase final version
* Note: Version history must show major changes with date and who did the change. By reading the version history, one should have reasonable picture of who did what in the group. If group works some parts together, mark either whole group or all names.
* Example: “Version 0.2 Introduction and terms and abbreviations / Susan Student
* 06.09.2020”.

**Table of contents** (page 2):

* Chapters and sections with page numbers (dgenerate automatically).

**Footnotes** (header/footer)

Each numbered page should have header and/or footer (so that all pages can be identified) with the following technical/engineering information

* document name, version number, group number
* file name, edited/modified-date (for example “SaveDate” field at Word) and page number with total number of pages count (for example 1/10).

# Introduction

## Contents and purpose of this document

Why was this document made, to whom is it for (examples: customer, designer team in your own company,…).

What does this document cover? What does it not cover?

## 1.2 Product, scope and environment

Product to be specified.

Diagram or picture showing the environment and the product (“architectural” No specific UML diagram required here, but the big picture)

Name, purpose and objective (benefits for the users) of the product and scope.

Operational environment in general terms. For example browser application, mobile application, desktop application, embedded application.

## 1.3 Users and purpose of use

Describe different users (who will be actually using the system) and purpose of use.

Recognize different user groups

Describe users (examples: chief of finances, IT-department, end user, customer’s customers, warehouse employees) and their use environments

Possible administrators/admins

Status of the users in organization if applicable, level of training required, intensity and frequency of the use (occasionally, every day, main tool for their workday etc.)

Who are the most important users? What is expected about the users (skills, training or education)?

Single or multiuser system?

User interface languages? (Localization)

## 1.4. Terms, definitions and abbreviations

Open all abbreviations used in the document in alphabetical order. Also explain words that might cause confusion or if you use common word in very specific meaning within the document.

Note, include terms etc. from both first and second phase.

# Requirements gathering plan

Part of the first phase is to plan how requirements would be gathered from the necessary stakeholders, and to do a stakeholder analysis.

## Background and current situation

What are the practices currently in place instead of the new system? What is working well, what are the major drawbacks. (Group supplements this information). Remember to take this section into account when finalizing the requirements for your new system.

## Analyzing current documentation and similar products

What documentation is currently available about the project? What we know based on that? Find out also about competing or similar products.

Are there any existing (competing) products already available (feel free to “spy” existing applications from public sources, and make your own software better)?

## PESTE

Do a PESTE-analysis for the project. Use its results to help finding the stakeholders.

## Stakeholder analysis

Results of the stakeholder analysis, format for example Excel. See example documentation ItSE\_Stakeholder\_example.pdf (NOTE: this is example of format, the content refers to different situation and project and is not complete. Note also that example documentations are not from the same projects, in your work all the results should be coherent with each other.)

Classifying the stakeholders, role, how requirements are collected, justification of the stakeholder (why we need them) and required participation (when and how needed). In addition categorization about what kind of requirements we except to receive from each stakeholder

## Preliminary requirements and their categorization

Requirements recognized based on the frame story. Classification of the requirements, source of the requirement, prioritization of the requirements. Suitable table for collecting the requirements later on.

See example document **ItSE\_Requirements\_example.pdf** (NOTE: this is example of format, the content refers to different situation and project. Note also that example documentations are not from the same projects, in your work, all the results should be coherent with each other.)

## Methods and timetable for requirements gathering

What kind of methods will be used to gather the requirements from the stakeholders?

Schedule for how the requirements would be collected from stakeholders and handled/analyzed. Who does what and when? Note, treat this as you would do this for your imaginary firm, not as a “how we, the students of TUNI will split our project work efforts”.

Format: Gantt diagram.

# Requirements and modeling the system

## Modeling (diagrams)

Required diagrams with their explanations. In addition, more detailed description of two use cases

### Use case diagram(s)

Use case diagram(s), including all their use cases (actors and actions).

In addition, detailed description of the two most important user stories.

#### 3.1.1.1 Example use case 1

#### 3.1.1.2 Example use case 2

### 3.1.2 Entity/Concept diagram

Diagram must include entities, their attributes and relationships with multiplicities

### 3.1.3 Navigation diagram

Navigation diagram(s) for the system’s interfaces

## User interface

Wire frames from **four** user interface views and example of possible dialog (if applicable). **The required frames will be added when phase 2 work starts.**

With the pictures and accompanying text, reader should be able to understand what elements and user interface components the view has and what information is shown. Based on the description, UI designers and developers should be able to design and then implement UI.

## Requirements

Requirements found based on the requirements gathering (the originals from the frame story and the requirements “found” during the gathering phase) in the table.

### Example requirement 1

More detailed description from functional requirement

### Example requirement 2

More detailed description of non-functional requirement

### Example requirement 3

More detailed description of restriction

## Environment

### 3.4.1. Other related systems and specialties

What other systems the system needs or uses, or provides data for. What kind of requirements they cause (you can add the requirements to the requirement table and just refer here)

### 3.4.2. Required connections, communication, and other environmental requirements

What kind of requirements for example for the connections or other things the usage environment causes? What is required from the system, what the system requires from the environment?

## Ideas for further development

Ideas for future development.

You have better list those somewhere when you invent such ones, otherwise you forget them and that is waste.

Customer also appreciates development ideas, as well as your company’s salespersons (maintenance and after sales).

## 3.6. Open issues

Open matters still needing attention (mostly only during the project, but in rare cases something may be here at the end of project). E.g. what to ask from customer or what to find out from some third party.

## References

(if any, e.g. customer’s GUI style guide, coding conventions)

## Appendices (A, B, C,..)

(if any, e.g. database logical schema, network architecture for the customer’s system)

Diagrams or pictures or tables may be here if those are difficult to embed in text. Remember to refer all appendix pictures/figures in text.