



**KTH ROYAL INSTITUTE  
OF TECHNOLOGY**

First cycle, 15 credits

# **KTH Bachelor Thesis Report**

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## **Abstract**

This is a template for writing bachelor thesis reports for the ICT school at KTH. I do not own any of the images provided in the template and this can only be used to submit thesis work for KTH.

The report needs to be compiled using XeLaTeX as different fonts are needed for the project to look like the original report. You might have to change this manually in overleaf.

This template was created by Hannes Rabo <hannes.rabo@gmail.com or hrabo@kth.se> from the template provided by KTH. You can send me an email if you need help in making it work for you.

Write an abstract. Introduce the subject area for the project and describe the problems that are solved and described in the thesis. Present how the problems have been solved, methods used and present results for the project. Use probably one sentence for each chapter in the final report.

The presentation of the results should be the main part of the abstract. Use about 1/2 A4-page. English abstract

## **Keywords**

Template, Thesis, Keywords ...

## **Abstract**

Svenskt abstract Svensk version av abstract – samma titel på svenska som på engelska.

Skriv samma abstract på svenska. Introducera ämnet för projektet och beskriv problemen som löses i materialet. Presentera

## **Nyckelord**

Kandidat examensarbete, ...

## **Acknowledgements**

Write a short acknowledgements. Don't forget to give some credit to the examiner and supervisor.

This page is very optional

## **Authors**

Author Name <email@domain.com> and Author Name  
Information and Communication Technology  
KTH Royal Institute of Technology

## **Place for Project**

Stockholm, Sweden  
Some place

## **Examiner**

The Professor Place  
KTH Royal Institute of Technology

## **Supervisor**

The Supervisor  
Place  
KTH Royal Institute of Technology

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The content only includes the first level of sub-headings as the third level was less relevant in the scope of the entire report. This can be changed in the setup.tex file.

# 1 Introduction

Provide a general introduction to the area for the degree project. Use references!

Link things together with references. This is a reference to a section: 1.1.

## 1.1 Background

Present the background for the area. Give the context by explaining the parts that are needed to understand the degree project and thesis. (Still, keep in mind that this is an introductory part, which does not require too detailed description).

Use references<sup>1</sup>

Detailed description of the area should be moved to Chapter 2, where detailed information about background is given together with related work.

This background presents background to writing a report in latex.

Example citation [1] or for two authors: [1, 2]

Look at sample table 1.1 for a table sample.

Table 1.1: Sample table. Make sure the column with adds up to 0.94 for a nice look.

<b>SAMPLE</b>	<b>TABLE</b>
One	Stuff 1
Two	Stuff 2
Three	Stuff 3

Boxes can be used to organize content

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<sup>1</sup>You can also add footnotes if you want to clarify the content on the same page.



```

Development environment for prototype

Operating systems
computer: Linux - kernel 4.18.5-arch1-1-ARCH
android phone: 8.1.0

Build tools
exp (build tool): version 55.0.4

...

```

Multiple images can be placed side by side like this:

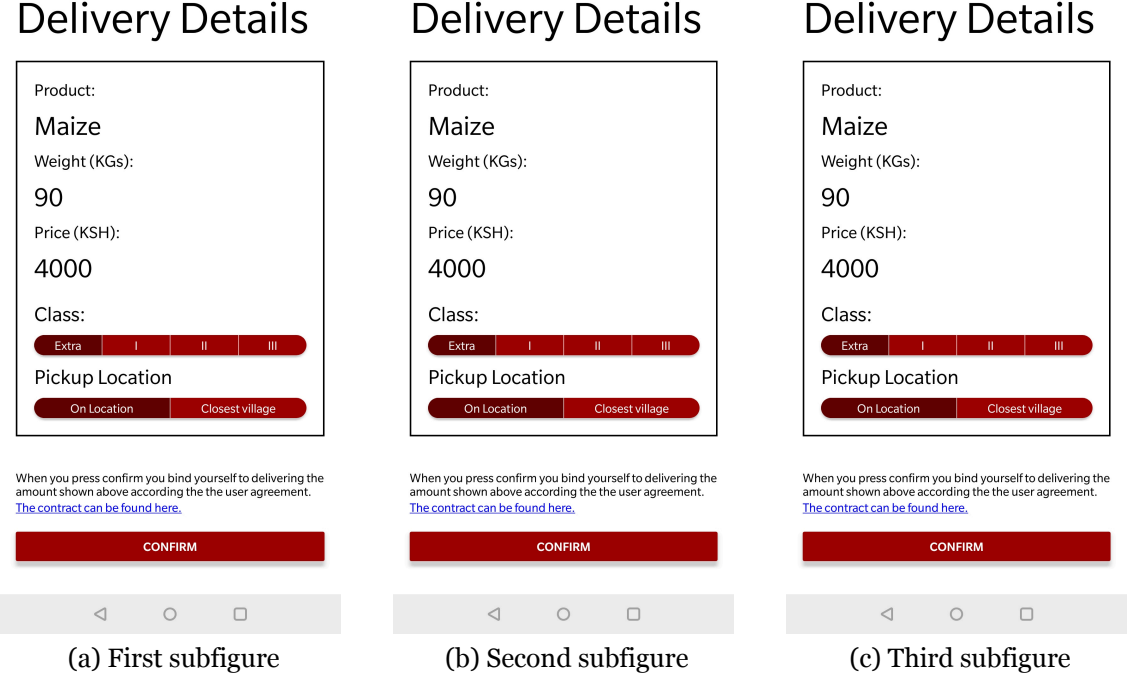


Figure 1.1: General figure caption. The width might not add up to 1. Try make sure it adds up to 0.9 instead.

### 1.2 Problem

Present the problems found in the area. Preferable use and end this section with a question as a problem statement.

Use references Preferable, state the problem, to be solved, as a question. Do not

use a question that can be answered with yes and/or no.

### **1.3 Purpose**

The purpose of the degree project/thesis is the purpose of the written material, i.e., the thesis. The thesis presents the work / discusses / illustrates and so on.

It is not “The project is about” even though this can be included in the purpose. If so, state the purpose of the project after purpose of the thesis).

### **1.4 Goal**

The goal means the goal of the degree project. Present following: the goal(s), deliverables and results of the project.

#### **1.4.1 Benefits, Ethics and Sustainability**

Describe who will benefit from the degree project, the ethical issues (what ethical problems can arise) and the sustainability aspects of the project.

Use references!

### **1.5 Methodology**

Introduce, theoretically, the methodologies and methods that can be used in a project and, then, select and introduce the methodologies and methods that are used in the degree project. Must be described on the level that is enough to understand the contents of the thesis.

Use references!

Preferably, the philosophical assumptions, research methods, and research approaches are presented here. Write quantitative / qualitative, deductive / inductive / abductive. Start with theory about methods, choose the methods that are used in the thesis and apply.

Detailed description of these methodologies and methods should be presented in Chapter 3. In chapter 3, the focus could be research strategies, data collection,

data analysis, and quality assurance.

## **1.6 Stakeholders**

Present the stakeholders for the degree project.

## **1.7 Delimitations**

Explain the delimitations. These are all the things that could affect the study if they were examined and included in the degree project. Use references!

## **1.8 Outline**

In text, describe what is presented in Chapters 2 and forward. Exclude the first chapter and references as well as appendix.

## **2 <Theoretical Background>**

In this chapter, a detailed description about background of the degree project is presented together with related work. Discuss what is found useful and what is less useful. Use valid arguments.

Explain what and how prior work / prior research will be applied on or used in the degree project /work (described in this thesis). Explain why and what is not used in the degree project and give valid reasons for rejecting the work/research.

Use references!

### **2.1 Use headings to break the text**

Do not use subtitles after each other without text in between the sections.

### **2.2 Related Work**

You should probably keep a heading about the related work here even though the entire chapter basically only contains related work.

### **3 <Engineering-related content, Methodologies and Methods>**

Describe the engineering-related contents (preferably with models) and the research methodology and methods that are used in the degree project.

Most likely it generally describes the method used in each step to make sure that you can answer the research question.

#### **3.1 Engineering-related and scientific content:**

Applying

engineering related and scientific skills; modelling, analysing, developing, and evaluating engineering-related and scientific content; correct choice of methods based on problem formulation; consciousness of aspects relating to society and ethics (if applicable).

As mentioned earlier, give a theoretical description of methodologies and methods and how these are applied in the degree project.

## 4 <The Work>

Describe the degree project. What did you actually do? This is the practical description of how the method was applied.

## **5 <Result>**

Describe the results of the degree project.

## **6 <Conclusions>**

Describe the conclusions (reflect on the whole introduction given in Chapter 1).

Discuss the positive effects and the drawbacks.

Describe the evaluation of the results of the degree project.

Describe valid future work.

The sections below are optional but could be added here.

### **6.1 Discussion**

### **6.2 Future Work**

### **6.3 Final Words**



**If you are using mendeley to manage references, you might have to export them manually in the end as the automatic ways removes the "date accessed" field**

## **References**

- [1] Jones, Gareth J. et al. "Leveraging community sport organizations to promote community capacity: Strategic outcomes, challenges, and theoretical considerations". In: *Sport Management Review* (2017). ISSN: 14413523. DOI: 10.1016/j.smr.2017.07.006. URL: <http://dx.doi.org/10.1016/j.smr.2017.07.006>.
- [2] Liu, Bo et al. "Group consensus for a class of discrete-time heterogeneous multi-agent systems in directed topology". In: *Proceedings - 2017 32nd Youth Academic Annual Conference of Chinese Association of Automation, YAC 2017* (2017), pp. 376–381. DOI: 10.1109/YAC.2017.7967437.

# Appendices

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## **A First Appendix**

This is only slightly related to the rest of the report

## **B Second Appendix**

this is the information

