Using LaTeX for High Quality Project Report

A PROJECT REPORT

Submitted in partial fulfilment for the award of the degree of

MS

in

Sofware Engineering

By

Santhos Baala RS, 09MSE038

Under the Guidance of

Dr. Krishna Chandramouli

Associate Professor

SCHOOL OF INFORMATION TECHNOLOGY AND ENGINEERING

VIT UNIVERSITY

VIT

UNIVERSITY

(Estd. u/s 3 of UGC Act 1956)

Vellore - 632 014, Tamil Nadu, India

DECLARATION BY THE CANDIDATE

I here by declare that the project report entitled **"Using LaTeX for High Quality Project Report"** submitted by me to VIT University, Vellore in partial fulfilment of the requirement for the award of the degree of **M.S. (Software Engineering)** is a record of bonafide project work carried out by us under the guidance of **Dr. Krishna Chandramouli (Associate Professor)**. I further declare that the work reported in this project has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Place: Vellore Signature of the Candidate

Date:

Santhos Baala RS (09MSE038)

VIT

UNIVERSITY

(Estd. u/s 3 of UGC Act 1956)

Vellore - 632 014, Tamil Nadu, India

SCHOOL OF INFORMATION TECHNOLOGY AND ENGINEERING [SITE]

SOFTWARE ENGINEERING DIVISION

BONAFIDE CERTIFICATE

This is to certify that the project report titled **"Using LaTeX for High Quality Project Report"**, submitted by **Santhos Baala RS (09MSE038)** to VIT University, Vellore in partial fulfillment of the requirement for the award of the degree of M.S. (Software Engineering) is a record of bonafide work carried out by him/her under my guidance. The project fulfills the requirements as per the regulations of this institute and in my opinion meets the necessary standards for submission. The contents of this report have not been submitted and will not be submitted either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Dr. Krishna Chandramouli

Internal Guide

Associate Professor,

School Of Information Technology & Engineering

Internal Examiner **External Examiner**

Acknowledgements

Executive Summary

This document describes how to use the vitmsprojectreport class with LaTeX to produce high quality typeset project report that is suitable for submission to the School of Information Technology and Engineering (SITE). The class can further be extended to various courses and department by modifying the title page and department information.

Table of Contents

List of Figures

List of Tables

1. Introduction

1.1 About the Template

With a basic understanding of the LaTeX language and say 10 to 20 commands, an author can produce beautiful typeset project report quickly, with minimal effort. The purpose of this document is to serve as a user guide for the project report template and document its special behaviours. Examples have also been provided for common tasks such as insertion of images, table, equation, etc., that can be copied as is by the users. It is assumed that the user has a basic knowledge on working of the LaTeX system. Those lacking are strongly urged to lookup some excellent literature through [1].

Sufficient examples have been given in the document and as users request solutions for specific problems that they encounter, more will be added. However, an understanding of the LaTeX system will help the user in unexplainable ways[1]. The main advantage of using the custom class is that, the user need not worry about the final layout. The class may be changed during the development of the project report, the user needs to just place the latest version of the class file, without touching the content[2]. LaTeX, along with the custom class file gives an incredible expressive power its users so that they can focus on the semantics of the document.

1.2 Generic LaTeX Commands

LaTeX contains many commands and with it comes numerous built-in packages that add many features and provide options to customise the output. However, the user is advised to stick to the basic commands, illustrated in this document so that unexpected or incorrect output can be avoided. If, however a specific feature is requested it shall be considered and incorporated into the template. The class file for project report has been extended from the standard *report* class, supplied by LaTeX. Therefore, whatever applied for report also applies for the custom class file.

[1] The LaTeX system is a vast ocean. That said, you can mostly get away with copy-paste skills. You have to observe the source code of the examples and learn

[2] It is always recommended to get the latest class file from the repository and compile before project report submission.

1.3 Generating the Final Document

The template development is an ongoing process. It is mature at this point from the point of view of semantics. Layout or default contents (e.g bonafide, acknowledgement, etc.,) may change at a later point in time. Therefore, before generating the final document, please make sure to check out a frozen version of the class file from the repository before compiling the class file.

1.4 Asking Questions

You can post your questions in the forum or if you encounter any problem related to unexpected/incorrect output due to the template send an e-mail to the contributors at the github page.

1.5 Contributing

The project is hosted on GitHub [2] and uses the GIT repository management system. Contributors can fork the project and send pull requests to the repository for the changes to be merged. The patch will be evaluated and if found to be good, merged into the master branch of the repository. If however, a separate template is required for other departments and courses, the project can be forked and maintained separately. Issues, pertaining to the template, such as rendering faults, can be posted in the issues section of the repo. The contributors shall also put up a list of items that need improvement or new features in progress that people can contribute to.

2. Auto-Generated Pages

The parts of the document, unique to the project report are generated by a predefined template, using simple commands. The order in which the commands are issued determine the corresponding order of these individual pages. The arguments that need to be passed to these commands are explained in the following sections. The sequence of commands to generate such pages have already been placed in the example document and it is recommended not to touch those, expect when inserting your project specific information.

2.1 The Title Page

The user can generate the title page using the `\maketitlepage` command. The detailed syntax is given in Figure 2.1.

```
\maketitlepage
{Project Title}
{Name}
{RegNo}
{Guide Name}
{Guide Title}
```

Figure 2.1: The syntax of \maketitlepage command

Note that you should always set the title page to be the first page of the document, so issue this command right after the document begins. The template also collects information like your name and regno when you declare the title page so that it can be auto-inserted into other pages like declaration and bonafide. Long names will automatically push the register number to the next line. However, to be safe, prepend your RegNo with \\, for e.g `{\\09MSE038}`, only if your name is long.

2.2 Declartion Page

TODO

2.3 Bonafide Page

TODO

2.4 Acknowledgement Page

TODO

2.5 Executive Summary Page

TODO

3. References

[1] Stefan Kottwitz. *LaTeX beginner's guide*. Packt, Birmingham, UK, 2011.

[2] RS Santhos Baala. Vit ms project report class, 2014. https://github.com/santhosbaala/vitmsprojectreport.