Project Report on

<Your project title>

<Student Name>
<NCC ID>

Computing Project
Level 5 Diploma in Computing
Softwarica College of IT & E-Commerce
Kathmandu, Nepal

<Report Submission date>

Statement and Confirmation of Own Work

Each time you submit an assignment you must attach this statement as the cover page for both the hard copy and the electronic version. If the statement is missing your work will not be marked.

Student Declaration

I have read and understood NCC Education's Policy on Academic Dishonesty and Plagiarism.

I can confirm the following details:

Programme/Qualification Name: NCC Education Level 5 Diploma in Computing

Student ID/Registration number:

Name:

Centre Name: Softwarica College of IT & E-Commerce

Module Name: Computing Project

Module Leader: Achyut Timsina

Number of words:

I confirm that this is my own work and that I have not plagiarised any part of it. I have also noted the assessment criteria and pass mark for assignments.

Due Date:

Student Signature:

Submitted Date:

Abstract

Here goes your abstract.

Generally, it is read at first before reading your report. It should try to sell your product or idea and lure the potential reader to read through your report to find details of how you have actually build the product. It should be understandable to the non-technical people, or people from other fields as well.

Some tips for writing *abstract*:

- Context/background of the project
- Aim of the project
- The solution that emerged
- Conclusions
- Main recommendations
- Avoid jargon, technical terms (if possible)
- Use layman's terms
- Be generic to specific

Contents

List of Tables

List of Figures

Acknowledgment (Optional)

Here goes your acknowledgment. It is optional.

Chapter 1

Introduction

This chapter should provide:

- Brief, relevant background to the system
- Justification for your project (Why it matters?)
- If any external agency is involved you should explain what the agency is, why the project is required and any other background.
- The system developed (Provide overview of your project, most probably with a rich picture.)
- The solution that emerged (For example: The final solution was developed using PHP and MySQL and implemented on the third party web server.)
- List of main features that your project has
- A short overview of the remaining chapters

1.1 Aims

State one or two major goals/aims of your project. for example:

- To build desktop application for managing student information of ABC college
- To automate the student information managing process in ABC college

1.2 Objectives

Objectives are the set of activities that you perform to achieve the stated aims. Your objectives should be SMART.

Some of the objectives will be technical(for instance, to solve some technical problem) and some will be personal (for instance, to learn a new programming language), and some academic (for instance, to learn different approaches to research activities).

State the objectives that you will have to perform to achieve the stated aim. For example:

- To gather requirements from the stakeholders
- To design ...
- To develop ...
- To test ...
- To document ...
- ...

1.3 Development methods

Describe which development method you choose and why?

Refer to NCC lecture notes for available types of software development methods. Choose either waterfall or agile (iterative) development methodology.

You are suggested to use waterfall methodology.

Try to find your own reasons for selecting waterfall methodology in your project.

Chapter 2

Analysis specification

What activities are involved in analysis? –Describe in detail

Why we need to perform analysis? –Give adequate reasons for conducting analysis

Provide overview of your project, most probably with a overview diagram. Try to be creative here, and use your own suitable overview diagram such that even a non-technical person can understand it. Try to come up with a rich picture of your system.

Provide guide to the reader of your analysis document (Which section/chapter is where in your document, and what it consists of?) For example: The requirements engineering process is described in Section 2.1. The Use cases and architecture are provided in Section 2.2, and 2.3. Finally, this report ends with a conclusion in a separate Section **??**.

This chapter should have following sections, along with its own introduction and conclusion:

- Requirements
- Use cases
- Architecture

2.1 Requirements

How you have collected requirements for this project? Describe in detail your requirements capturing method.

Put the same things from the last analysis specification document you have submitted along with the improvements.

2.1.1 Functional requirements

You should at least have 10 functional requirements specified in the following format.

ID: R1

Title: User sign up

Description: A new user should be able to register through the web portal. The user must provide user-name, password and e-mail address.

Rational: To acquire users credentials for login process

ID: R2

Title: User log in

Description: Existing user should be able to login to the system using pre-existing user name and password. Appropriate message to the user should be provided whether one has entered correct credentials.

Rational: To maintain user security and privacy

ID: ...

Title

Description: ...

Rational: ...

Dependencies: ...

2.1.2 Non-functional requirements

Put the same things from the last analysis specification document you have submitted along with the improvements.

2.1.3 Prioritization

Put the same things from the last analysis specification document you have submitted along with the improvements.

2.2 Use cases

One thing you need to have in your mind while developing use cases is "Developing use case is fundamentally a scenario writing activity, not just drawing use case diagrams"(Larman 2012).

2.3 Architecture

2.3.1 System architecture

Put the same things from the last analysis specification document you have submitted along with the improvements.

2.3.2 Initial class diagram

Put the same things from the last analysis specification document you have submitted along with the improvements.

2.4 Conclusion

Put the same things from the last analysis specification document you have submitted along with the improvements.

Chapter 3

Design specification

3.1 Introduction

Put the same things from the last design specification document you have submitted along with the improvements.

3.2 Structural model

Put the same things from the last design specification document you have submitted along with the improvements.

3.3 Database model

You should provide your relational and/or entity-relational model with relevant data dictionary in this section.

3.4 Behavior model

Put the same things from the last design specification document you have submitted along with the improvements.

3.4.1 Sequence diagram

Put the same things from the last design specification document you have submitted along with the improvements.

3.4.2 Activity diagram

Put the same things from the last design specification document you have submitted along with the improvements.

3.5 Conclusion

Put the same things from the last design specification document you have submitted along with the improvements.

Chapter 4

Implementation

This chapter should discuss:

- Choice of programming language
- System cut-over from the development architecture to the implementation architecture
- Data migration from the development architecture and/or existing systems to the implementation architecture
- Training (how, why and when particular groups of users will use the user guides?)

4.1 Introduction

4.2 Programming language(s)

Which programming language you have used to develop your application? Why you have chosen that particular language? Given detailed description of the particular programming language, including historical background, current development, recent features, language usage context, etc. (Research and write).

4.3 Development environment

You should write about:

- Standard libraries

- IDEs
- Frameworks (testing frameworks, etc.)
- Your development platform
- Other CASE / design tools you have used

4.4 Deployment strategy

You should describe:

- System migration from development environment to production environment
- Data migration from development environment from development environment to production environment
- Can be shown using deployment diagram

4.5 User training

This involves the development of user guide that should be placed in appendix. The user guide should consist of screen dumps of the system along with supportive narrative that explains how to use a particular screen. There should be a short section in the report that explains how, why and when particular groups of users will be trained.

4.6 Conclusion

Chapter 5

Conclusion

The conclusion is the last section of your report. It is generally read at last and most probably your readers have already read all previous sections of your report. So it is not just enough to restate what you have already written in your report, but should discuss what should your readers do about the product.

This chapter is a reflective evaluation of your project in terms of:

- Whether or not you have achieved your aims and objectives
- What problems occurred and how you overcame them
- Things that you may do differently in any further projects that you undertake and your reasons for doing so
- State the commercialization potential or practical applications of your outcome

Chapter 6

Future works

Your suggested further extensions to your project can be discussed in this section.

You should use Harvard style of referencing (for example Dawson 2005, Weaver 2004). Try to minimize the web references. Maximize the use of books, journal, scientific papers, articles into your report. As you already know that the web references are very volatile and can change pretty frequently, whereas the sources that are more permanent or could be made accessible for a foreseeable future are the sources that I suggest to use.

Bibliography

Dawson, C.W. (2005). *Projects in Computing and Information Systems: A Student's Guide*. Addison-Wesley. ISBN: 9780321263551.

Larman, Craig (2012). *Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development, 3/e*. Pearson Education India.

Weaver, P.L. (2004). *Success in your project: a guide to student system development projects*. Prentice Hall. ISBN: 9780273678090. URL: `http://books.google.com.np/books?id=LKZQAAAAMAAJ`.

Appendices

Appendix A

Test scripts

Appendix B

User guide

Appendix C

Source code (Optional)

You need to handover the source code into a repository in bitbucket or github.