

University of Eswatini
Department of Computer Science
CSC 393

Mini Project

Marks: 100

Instructions:

This project conducted by a team that consists of two (2) to four (4) students. You may use system design technologies of your choice.

PART ONE: SOFTWARE SYSTEM PROBLEM IDENTIFICATION [25 MARKS]

Identify any system in which you may want to analyze and design that may be developed into software. For example, the system can be digitalizing a publishing process, an inventory system, an accounting system, a computer game system development, etc.

Your task is to do a thorough research about the system that you wish to develop. In about a page write a detailed summary of the identified system and its processes. Provide the necessary citation about where you found the information about the system identified.

PART TWO: PLANNING **[25 MARKS]**

In not more than two pages, write a brief summary of the project identified in part 1. Highlight the core concepts of system analysis planning and monitoring for the system. You will have to address the following

- i) The change that the project seeks to solve,
- ii) The need that you has been noted and must be addressed,
- iii) The solution which you aim to obtain,
- iv) The stakeholders involved in the project,
- v) The value which the project will bring to the stakeholders,
- vi) Specify the context that may affect and influence the project.

You must also write down any assumption that you have considered for the project.

PART THREE: REQUIREMENT ANALYSIS **[25 MARKS]**

Specify and design at least two requirement gathering techniques that can be used to build an SRS document. You may, for example, do the any of the following

- i) Design a sample interview questions – and specify what you wish to achieve from the questions and who will be interviewed.

- ii) Design a sample questionnaire - and specify and specify what you wish to achieve from the questions and who will be questioned.

PART FOUR: SYSTEM DESIGN

[40 MARKS]

From the SRS, develop a design of the system identified above by developing the following.

- i) Develop a context diagram, i.e., Level 0 DFD
- ii) Develop level 1 Data Flow Diagram
- iii) Develop level 2 DFDs for at least two of the processes in the system.
- iv) In not more than two pages, develop a data dictionary for the DFDs presented above.

PART FIVE: GITHUB

[10 MARKS]

Use GitHub as Git a version control environment to collaborate and share your project with your partner. The source code and other supporting documents, e.g., Readme file, of the project must available be in GitHub.

Each project member must have a GitHub account. A GitHub URL link to your account profile must be submitted. Submit a GitHub URL link to the project.

Submission:

The submission date is **3 November 2024 at 23h00**.

Submit your assignment in a **PDF** file format.

Submit via the Moodle portal.

No deadline extensions will be made.

Only one member may submit the tasks. The names and student numbers of all team members must be written in the submitted file.

Demo/Presentation Event:

Students will have to demonstrate their tools within 10–15-minute slots on **Thursday, 7 November 2024**.