SYSTEM DEVELOPMENT

CHAPTER 1 INTRODUCTION

* 1. PREAMBLE

The organization that you have selected to automate the manual system and this will contribute to the final project development. For example, if you choose to create a class scheduling for the department of Information Systems, you need to provide a brief description about the department itself. (One paragraph only)

* 1. PROBLEM DESCRIPTION
     1. Background of the problem

Based on the interview that you have done and user clarification of what kind of manual system that currently consume their time. Discuss about the problem that the user have with regards to the manual system.

* + 1. Problem statement

Describe the specific problem that the user is currently facing. These are the problems that you are going to solve by automating them the manual system with your proposed system. (At least five (5) problem statements)

* 1. PROJECT OBJECTIVE

The main purpose you develop the system and the solution to solve all of the stated problem statements.

* 1. PROJECT SCOPE
     1. Scope

Describe the scope of the system processes that will be automated. A general scope would be for example, if you create a class scheduling system for JKUAT, thus the scope will be JKUAT.

* + 1. Target User

The class scheduling is focused specifically for Department of Information Systems.

Thus, describe in details about the department itself such as the number of staff and each particular staff’s duty and the job level. These details must focus on the actual users of your system.

* + 1. Specific Platform

For this part, you are expected to specify what kind of hardware and software that are needed in order to develop and run your system for the target users. This specification depends on the user requirements. For example, if the main users for the class scheduling system are the

administrative staff since they are connected to the university’s Internet connection, and in order to save cost you will suggest that the web based application will be suitable to automate the job.

Then you have to list down what are the hardware and software required to run the application.

* 1. CONSTRAINTS

In this section, you are required to explain the limitation of the project itself. For example, limitations would include uncooperative user, high cost of hardware and software requirement. Limited user budget would force the project to be withdrawn or to exclude major features and for this you need to provide basic costing.

* 1. PROJECT STAGES

Explain the proposed milestones for your project by using the Gantt chart and a brief explanation for all the milestones stated. (Gantt chart required) (Use Microsoft Project)

* 1. SIGNIFICANCE OF THE PROJECT

Explain the benefits of the project to the target users. Provide at least 5 benefits from the project. (You can use the point @ bulleted form in stating the significance of the project)

* 1. SUMMARY

Summarize the important points that you have discussed as above. (One paragraph only)

CHAPTER 2 LITERATURE REVIEW

* 1. INTRODUCTION

Discuss the important of literature reviews towards developing your project. This contributes to the preliminary research or survey towards completing the whole system development.

* 1. SYSTEM REVIEW
     1. Existing Products

List at least three (3) existing products on the market or products that exist within the organization. You need to provide a screen shot for these existing products.

* + 1. Advantages

List down the advantages of each of the products and describe each of them in detail. Provide screen shots. (Compare between each of the products)

* + 1. Disadvantages

List down the disadvantages of each of the products and describe each of them in detail. Provide screen shots. (Compare between each of the products)

2.2 SYSTEM ADAPTATION

Based on advantages and disadvantages of the compared existing products, describe the features that you need to include in your system and what are the features that you need to customize and improve for the project that you are going to develop

CHAPTER 3 ANALYSIS AND DESIGN

* 1. INTRODUCTION

Explain in general what this chapter is all about and its significance to the analysis and design of your project or system. (One paragraph only)

* 1. DEVELOPMENT APPROACH

State in detail the development approach that you used to develop the whole system, either extreme programming, agile software development, rapid prototyping, and unified software process. State why you choose the approach and how it is related to your project. (System Development Methodology)

* 1. REQUIREMENT SPECIFICATION

Explain in detail each of the features or functions that the user has agreed to include as part of the system or the purposed features or functions to be included in the system.

* 1. LOGICAL DESIGN
     1. ACTIVITY DIAGRAM

Specify and create details flow chart and also specific flow chart for all the functions and features. Provide a list of diagrams based on functions or modules. List of diagrams needed:

* + - 1. Activity Diagram (Business process flow – Details flow chart)
      2. Use Case Diagram (Interaction between system and user / capture business scenario)
      3. Package Diagram (How the classes are organized into package (related with d. item and interdependencies of those packages)
      4. Class Diagram (Physical/system design phase and a class diagram can be translated to an ERD)
      5. Sequence Diagram (Interactions between objects)

Note:

Items (b)-(e) are more meaningful if student using OO language eg. Java, C++, C#. (Use Microsoft Visio)

* + 1. DATA FLOW DIAGRAM

Specify and create data flow diagram level 0 and level 1 based on features, functions and data flow of your system. This would include the input and output of the data. Provides a list of diagram based on functions or modules. (Use Microsoft Visio)

* 1. DATABASE DESIGN

Specify the overall entity relationship diagram (ERD) for database tables that are required for the system. Provide every table with a list of attributes and data type.

* 1. INTERFACE DESIGN

Provide the details navigation or page flow of your system starting from login until the user signs out.

CHAPTER 4 SYSTEM IMPLEMENTATION

* 1. INTRODUCTION

Briefly describe about the chapter and the final product of the project.

* 1. SYSTEM INTEGRATION

This part must include the main page or main website for the system and it must be a screen shot of the main system. For group project, you need to combine and complete the whole system.

* 1. SYSTEM OUTPUT
     1. Administrator

Screen shot for all administrator functions or modules.

* + 1. User

Screen shot for all user functions and modules.

* 1. SYSTEM TESTING
     1. Test plan

State the test plan and activities involved and draw a conclusion from the test plan and state the comments given by the users.

* + 1. Enhancement

Based on user testing, what are the functions and modules that needs to be improved.

CHAPTER 5 CONCLUSION

* 1. SYSTEM REQUIREMENT

State the requirements that your system has satisfied and has not satisfied or due to late request from the user.

* 1. SYSTEM CONSTRAINT

In this part, state the limitations of the system that would require future improvement.

* 1. FUTURE ENHANCEMENT

State the module or function or feature or system capability that needs to be improved in the future.

* 1. CONCLUSION

Summarize the important points, the limitation and enhancement for the system.