CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter will explain the methodology of UMP Library System building. Methodology means the method that will be used to build this system. In addition, methodology is the most important part in system development. UMP Library System will use System Development Life Circle (SDLC). SDLC is a series of phases in the development process. It provides a model for development and lifecycle of an application. The SDLC process will help to produce the effective, cost-efficient, and high quality of the system. There is several type of SDLC; Waterfall model, Spiral model, V-model, Iterative model, Big Bang model.

Figure 3.1: Lifecycle SDLC
3.2 Project Methodology

The UMP Library System will use waterfall model SDLC. It is the most popular model that has been use in system development life cycle (SDLC). Waterfall model is the simple and easier to use and to be understood by others. In every phase of waterfall has review process. The waterfall model which is known as classic life cycle model is the first model to be introduced. The waterfall model was first model used for software development. The process phases of the waterfall model will be separately divided, the one phase outcome will act as the input in the next phase sequentially. In addition, the waterfall model will help to plan and schedule the system development. Development process moves from planning, analysis, designing, implementation, testing and will end up with maintenance.

![Waterfall Model](image)

Figure 3.2: Waterfall Model
3.2.1 Planning.

The planning phase will concludes all of the collected data that is needed to develop the systems. It includes all the detail steps and work plan. This process will make sure that the idea of the system development work smoothly. In this chapter the specification of the system scopes is listed. Furthermore, the features system planning is concluded in this phase as well.

![Figure 3.3: Planning Phase](image)

3.2.2 Analysis

The system that have been done before are analyzed in this phase. Identify the problems of the existing system. The general recommendation on how to fix enhances or how to replace the current system will be analyzed from the problems recorded. Furthermore, the user need also will be analyzed to make sure the UMP Library system is user friendly and suitable to be implemented.