1.0 Introduction

This section provides an overview of the entire software development requirements document. This document will include all data, functional and behavioral requirements for developing the system by using many diagrams such as Use-Case diagrams, Activity diagrams, ERD, and Class diagrams.

1.1 Goals and objectives

Basing on the analysis of software requirements, the  goals and objectives of this high school book tracking application(abbreviate “application” hereinafter ) are as below:

1. The diversification of operation

The application will provide various operations. For example, student can check which book in the library and the amount of available books; teachers can borrow the course textbook according to the number of students; library staff can modify and updates the basic information of books, etc.

     (2) The system security

System security means that using the method of system security engineering and system security management in system life cycle to identify the hazards and take some effective steps to minimize the risk. As a result, system will run within the best degree of security.

     (3)  Maintenance

Software maintenance is the ability to compile software again during the entire period of software compilation and put into use until the software update is finalized to fill the vulnerability or meet new business needs. Therefore, maintenance is through the entire lifecycle of the software, and maintenance is not a simple modification process, so in the development process, we must pay attention to software maintainability.

     (4) User action and operation

The user interfaces are friendly and easy controlled, which make students, teachers and library staffs have good experience.

     (5) Speed of performance

The system must respond to all requests within 5 seconds.

     (6) Interface

The user interface should be clear, simple and easy to operate. The application should pay attention to customer experience.

1.2 Statement of scope

The Scope of the Project is to give a platform to students, teachers and library staffs, which can interact with the system on a web based form which generates the information of books to the students and teachers and also to the  library staff. This kind of format is very reasonable to manage and maintain for both users and to the managers. The List of major input, processing etc is presented below and their ranks are also specified.

1.3 Software context

The software designed will be a web based application. It basically consists of 3 tier architecture. Application server (tomcat) will set up the application. The application will communicate to the database (SQL Server) to retrieve information and the information of book should use the information of  Google book. The clients will use a browser (Chrome, Mozilla Firefox, internet explorer) to access the application.

1.4 Major constraints

The major constraints in the development are that the system should respond within the required constraint described in the project manual. The software is developed keeping in mind about the needs of the customer and their interaction between the system. The software is designed to give the best efficiency possible. It is also organised to fix quick errors or bugs.