|  |
| --- |
| SOFTWARE REQUIREMENTS SPECIFICATION |
| FACULTY ADVISORY SYSTEM |
| By  A. SAI KARTHIK (B150310CS)  ARPAN KUNDU (B150372CS)  RAKHEE POONAM LAKRA (B150547CS)  SAAHIL KAMAT (B150470CS) |

10/11/2017

**TABLE OF CONTENTS**

1. Introduction
   1. Purpose
   2. Scope
   3. Intended Audience Definitions, Acronyms and Abbreviations
2. Overall Description
   1. Product Perspective
   2. Product Functions
   3. Operating Environment
   4. User Characteristics
   5. Design and Implementation Constraints
   6. Assumptions and Dependencies
3. External Interfaces Requirements
   1. User Interfaces
   2. Hardware Interfaces
   3. Software Interfaces
4. Functional Requirements
5. Behavioural Requirements
6. Non-Functional Requirements
7. **Introduction**
   1. **Purpose**

The purpose of this document is to describe the Faculty Advisory System. This document contains the functional, behavioural and non-functional requirements of the project and it also contains guidelines for system engineers and designers to start working the project.

* 1. **Scope**

Faculty Advisory System is basically updating the manual process of registration into an internet based application so that a faculty member can directly register a student, of whom (s)he is a faculty advisor, for a course in case the student has no library or hostel dues.

The project is specifically designed for the use of hostel staff, library staff, faculty members and students. The product will work as a complete user interface for registration process.

* 1. **Audience Definitions, Acronyms and Abbreviations**
     1. **Audience Definitions**

The intended readers of this document are the developers of the site, testers, registration managers and coordinators. Any suggested changes on the requirements listed on this document should be included in the last version of it so that it can be a reference to developing and validating teams.

|  |  |
| --- | --- |
| **1.3.2 Acronyms and Abbreviations Acronym** | **Meaning** |
| SQL | Structured Query Language |
| ASP | Active Server Pages |
| IEEE | Institute of Electrical and Electronics Engineers |

* 1. **References**
* IEEE 830-1998 standard for writing SRS document.
* I Sommerville, Software Engineering, 8th edition, Addison-Wesley, 2007.

1. **Overall Description**
   1. **Product Perspective**

Faculty advisory system is a replacement for the ordinary faculty advisory systems which depend on paper work for collecting information regarding hostel and library dues.

* 1. **Product Functions**
     1. **Administrators**
* Admin should be able to add a course
* View all available courses and assign instructors for the same
* Update current semester
* Assign a Faculty Advisor to a student
* Delete the account of an user if (s)he is no longer a member of the institute.
  + 1. **Library Staff**
* Library staff should be able to enter details of a new book brought into the library
* Update details of an existing book
* Check Out a book to a student
* Check In a book from a student
  + 1. **Hostel Staff**
* Hostel staff should be able to view and update the hostel dues of a student
* View and update the room allotted to a student
  + 1. **Faculty Member**
* A faculty member should be able to view the list of students of whom (s)he is a faculty advisor and register them for a course in case they have no library or hostel dues
* View the list of students registered for courses instructed by him/her
* View and take attendance of all such students
  + 1. **Students**
* A student should be able to view all courses for which (s)he was registered in a particular semester
* View his/her attendance status in all the courses for which (s)he is registered in the current semester
* View his/her grade in all the courses for which (s)he was registered in the previous semesters
* View the details of all the books checked out to him/her from the library
* View his/her hostel dues and room allotted
  1. **Operating Environment**

The faculty advisory system is a website and shall operate in all famous browsers, for a model we are taking Microsoft Internet Explorer, Google Chrome, Mozilla Firefox with Flash Player and Java Script.

* 1. **User Characteristics**

Users of this faculty advisory system are hostel staff, library staff, faculty members, students and administrators who maintain the website. Students and staff members are assumed to have basic knowledge of computers and internet browsing. Administrators of the system should have more knowledge of internet modules of the system and are able to rectify small problems that may arise due to disk crashes, power failures and other catastrophes.

* 1. **Design and Implementation Constraints**
* The information of all users, hostel and library dues must be stored in a database that is accessible by the website.
* SQL server will be used as SQL engine and database.
* The online faculty advisory system is running 24 hours a day.
* Users may access from any computer that has internet browsing, capabilities and an internet connection.
* Users must have their correct usernames and passwords to enter into their online accounts and do actions.
  1. **Assumptions and Dependencies**

The product needs the following third party products:

* Microsoft SQL server to store the database.
* ASP.net to develop the product.

1. **External Interfaces Requirements**
   1. **User Interfaces**

**Login Interface**

In case the user is not registered yet, (s)he can enter the details and register, which asks the user to type his username and password. If the user entered either his username or password incorrectly, then an error message occurs.

**Search**

A student can search for his/her own details or a staff member can search for the details of a particular student.

**Control Panel**

This control panel will allow administrators to add a course, add or remove an instructor for a course, update current semester, assign a faculty advisor to a student and delete an user’s account.

* 1. **Hardware Interfaces**

Only the recommended configuration (basic requirements of a computer system) no other specific hardware is required to run the software.

* 1. **Software Interfaces**
* Browser to load and view the web pages
* Operating System

1. **Functional Requirements**
   * 1. **Admin**

Insert Record

This action is done to add a new course.

Modify Record

This event is to update current semester or assign a faculty advisor to a student.

Delete Record

Admin can delete a member due to some specific rules.

* + 1. **Library Staff**

Register

When new user enters for the first time, then (s)he has to register.

Insert Record

This action is done to add a new book to the library book collection.

Modify Record

This event is to modify the details of an existing book.

Return Book

Library staff should confirm the return of books borrowed by users.

* + 1. **Hostel Staff**

Register

When new user enters for the first time, then (s)he has to register.

Insert/Modify Record

This event is to insert the details of a new hostel inmate or modify the details of an existing hostel inmate.

* + 1. **Faculty Member**

Register

When new user enters for the first time, then (s)he has to register.

Insert Record

This action is done to register a student for a course or take the attendance of a student registered for a course and store the details in the database.

* + 1. **Students**

Register

When new user enters for the first time, then (s)he has to register.

* + 1. **Common Functions**

Login

Both admin and members must be logged in before they modify/view any information.

Search for record

When user or admin wants to search on some record by roll number, name etc.

1. **Behavioural Requirements**
2. **Non Functional Requirements**

**Error Handling**

* Faculty advisory system shall handle expected and non-expected errors in ways that prevent loss of information and long downtime period.

**Performance Requirements**

* The system shall accommodate high number of records and users without any fault.

**Safety Requirements**

* System use shall not cause any harm to human users.

**Security Requirements**

* System will use secured database
* Normal users can just read information but they cannot edit or modify anything except their personal information.
* Systems will have different types of users and every user has access constraints.