American International University- Bangladesh

Project

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Course Name: **SOFTWARE REQUIREMENT ENGINEERING**

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Software Requirements Specification

for

BLUE BIRD SCHOOL's

STUDENT MANAGEMENT

SYSTEM

Version 1.0 approved

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1. Introduction

1.1 Purpose

This software package is developed -

. To maintain/process complete details of Students about their personal, academic, sports and health domain.

. To enable students to view their marks and grades any time from their home. No need to meet professors personally.

. To enable professors to upload marks and submit grades from his/her office. No need to mail and wait it to be forwarded to all mailing groups.

. To enable medical officer and admin staffs to view student's medical history and medical status in any case of emergency.

. To enable Sports PTI to classify students in different categories and accordingly form their groups during any fest.

1.2 Document Conventions

The following documentation conventions are followed in preparing this SRS:

. All key-words related to the academics are formatted in italics.
. SRS-Software Requirement Specification

1.3 Intended Audience and Reading Suggestions

This document is created for,
. The Instructors of the course 'Software Engineering' for their review and monitoring progress of the project.
. The software development team for their use in analyzing the requirements.

1.4 Product Scope

The scope of the to-be-developed 'Student Management Portal' software package is:

i) To cater to ALL types of Courses offered by the administration to students.

ii) To cater to the need of a suitable interface for all students and instructors of an offered course.

iii) To facilitate medical officer to know students' medical history and fill up any details.

iv) To facilitate PTI to quick team selection in case of participation in any sports fest/tournament.

v) To facilitate administration to view any details of student quickly.

1.5 References

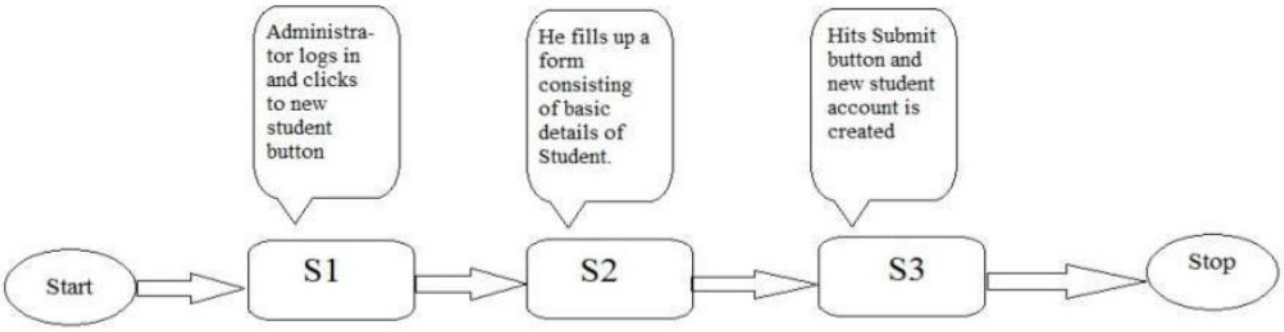
The following references are used in preparing this SRS:
.SlideShare
. Wikipedia.

2. Overall Description

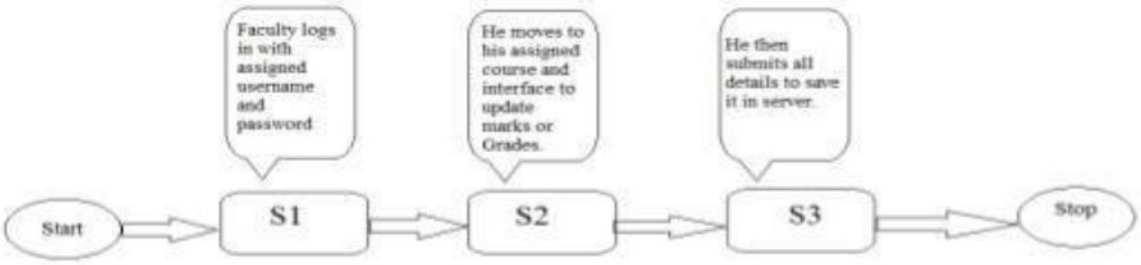
2.1 Product Perspective

The following diagram describes the high-level business process of the Student Management functions of the LNMIIT:

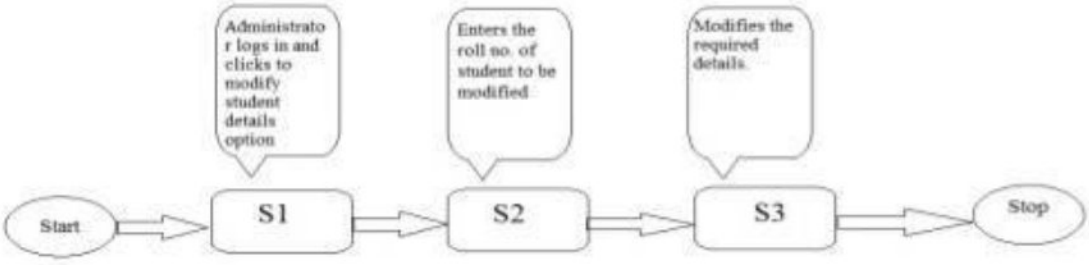
The Student Management Functions Part — 1: Creation and Maintenance of Student Details:



The Student Management Functions Part – I: Creation and Maintenance of Grade Details of Students:



The Student Management Functions Part – I: Creation and Maintenance and Modifying Student Details:



2.2 Product Functions

This software package is expected to offer the following services:

1. Administrators:

a)To facilitate the maintenance of important records of students.
b) To maintain grade reports of any student and courses enrolled in any semester online.

2. for Faculties:

a) To keep track of improvement/decline in the performance of any student enrolled in their courses online.
b) To provide their contact details to students and acquire students' contact details when needed.

3. for Students:
a) Facility togo through their course progress and the grades and marks of various fields in the course.
b)Facility to view their personal details and view some of them.

4. for Medical Officer:
a) Facility to access medical history of student and view current health status.
b) Facility to Add/modify any health detail of any student.

5. for Physical Trainer:
a) Facility to access sports achievement details of all students.
b) Facility to classify students into different levels of competence. thus easing team selection during any fest/tournament.

2.3 User Classes and Characteristics

a) Faculty: These users will fill the marks of the students that ai enrolled in the course. And will calculate the grades of a student and publish them.

b) Administrator: In the aspect of the student, this user will create profile for a new student:
assign him/her the courses in which he/she has been enrolled. Admin can modify the details related to the registered student. And in the aspect of faculty. Admin can allot them courses to teach according to the particular session.

C) Student: This user can see his profile and progress in particular or current curriculum via viewing his grades uploaded by the faculty on his profile and can contact to the faculty if there are any issues related to it.

d) Medical Officer: They can view student medical history and data related to various health

aspects ofstudent(e.g. Height. weight. Blood report etc.t. They can add/modify these details as well.

e) Physical Trainer: They can view details regarding sports activity of a student. They can add any achievement of any student. They can classify students according different level of competence that will ultimately ease them to select proper team for any fest.

2.4 Operating Environment

This software package is expected to work in the following atmosphere:

1) Microsoft stack consisting of.

a) OS - Windows 7. XP
b) Eclipse IDE
c) Java. PHP. jQuery. HTML. Java Applets
d) MySQL server.

2.5 Design and Implementation Constraints

the design time constraints are:
a) The software package should be designed so as to handle the access by —20 Instructors/staff.1 Admin and —150 students concurrently.

2.6 User Documentation

a) This software package will come with a user's manual as a guide to its interface actions.

b) The details of the (i) Analysis. (iii) Design and (iii) TestCases of this software package will be delivered along with this software.

2.7 Assumptions and Dependencies

There are no assumptions made.

3. System Features

The requirements of this software package are described per each category of User:

i) All requirements of the MIS Portal for The Administrative Staffs

ii) All requirements of the MIS Portal for The Student.

iii) All requirements of the MIS Portal for The Faculty.

iv) All requirements of the MIS Portal for The Medical Officer.

v) All requirements of the MIS Portal for The Physical Trainer.

Business Use Case # 1: All the Requirements of Administrative Staffs:

3.1 Adding Student and Faculty Details in The Database

The TBD (to-be-developed) software package should facilitate Administrative staff to,

i) To add a new Student's Personal details, Academic details, Financial details, Medical details and Sports Activity details in the MIS Database.

ii) Assigning user name and password to each Student.

iii) Viewing and Modifying Personal details, Academic details, Financial details, Medical details and Sports Activity details in the MIS Database.

iv) Adding Faculty information and course in the MIS Database.

v) Assigning user name and password to faculty.

3.2 Viewing and Editing Information from Student Portal

The TBD (to-be-developed) software package should facilitate the MIS Portal for The

Students to,

i) View his/her Personal details, Academic details, Financial details, Medical details and Sporting Activities in the MIS Database.

ii) Students are authorized only to edit Mobile Number, Email —id, Residential Address.

3.3 The TBD (to-be-developed) software package should facilitate the MIS Portal for Faculties to,

i) View his/her list of courses assigned in the current semester.

ii) Faculty are authorized to edit his/her details such as: Name, Phone Number, Room Number, Mobile Number, Email -id.

iii) Faculty gets list of all the courses assigned to him/her.

3.4 Viewing and Adding Student information by The Medical Portal

4.2.1 The TBD (to-be-developed) software package should facilitate the MIS Portal for The Students to,

i) View any student's Personal details, Medical details and Sporting Activities from the MIS Database in a single line.

ii) The Medical Officer will be allowed to add new disease which he found in the student and also can change student's current health status.

3.5 Viewing and Adding Student information by The Trainer Portal

The TBD (to-be-developed) software package should facilitate the MIS Portal for The Physical Trainer,

i) View any student's Personal details, Medical details and Sporting Activities from the MIS Database in a single line.

4. External Interface Requirements

4.1 User Interfaces

the set of User Interfaces consists of:
a) To log in to their respective accounts by users.

b) To Add and Modify courses. Add fields to a course such as Quizzes. Attendance and define their respective weightages in the course, save and publish the various data stored in the fields.

C) Toread the 'published' data. by the students/Admin according to the permission of their respective accounts.

d) To generate the grade sheet by the admin for the particular semester for each student.

e) To view sports and medical details of a student and edit those.

f) To get list of student playing a particular sport with required level of proficiency.

4.2 Hardware Interfaces

NIL

4.3 Software Interfaces

NIL

4.4 Communications Interfaces

This software package should be securely accessible through intranet communication channels

(wired or wireless).

5. Other Nonfunctional Requirements

5.1 Performance Requirements

This software should be able to handle the following tasks:

a) At least 20 instructors/staff can log in on an average of four hours a day for five days a week.
b) At least 100 students can log into their accounts for 3 hours for 5 days of the week.
e) It should be able to handle the MYSQL database of 100 instructors and 1500 students.

5.2 Safety Requirements

This software will ease the process of student grading. At the end of every semester each student will receive a grade sheet generated by the administration using the data uploaded by the course instructor on this software. All important details should bemaintained in hard copy as well.

5.3 Security Requirements

This software will,
a) Authenticate each user, who logs in;
b) When the user performs any action, authorize him/her to perform the actions allowed for the user and displays an error message if found to be unauthorized.

5.4 Other Software Quality Attributes

NIL

5.5 Business Rules

No such business rule.

6. Other Requirements

NIL

Appendix A: Glossary Appendix B:

Analysis Models Appendix C: To Be

Determined List

Appendix 1: Username and Password Rules:

1. Username should begin with any letter.
2. Username should be unique for all users.
3. Username should be at-least 6 characters long.
4. Password should contain at least one special character and one number.
5. Password should be at least 6 characters long.