**Exam Management System**

The following are the main requirements of an exam management system to manage student exam results. You need to make it complete, correct and consistent.

**Some background information:**

Exam type: programming, communication, core exam. Exam results include: passed, failed, incomplete. A student can graduate if he/she has passed programming, communication, and core exams.

Core exam includes the following 4 groups:

Group 1: CS 5329

Group 2: CS 5346, CS 5391

Group 3: CS 5332, CS 5310

Group 4: CS 5338, CS 5318, CS 5351

A student has passed the core if he/she has passed one of the courses in each group after he/she has taken the course in a semester. The programming and communication exams are held on specific dates.

1. **Functions used by Faculty**
2. **Login**

A faculty member should login the website using username and password.

1. **Exams**
   1. Create Exam

This function allows a faculty member to create programming and communication exams. Once these exams are created, then the students can see them in their interfaces. The exam information includes exam type (programming or communication), exam date in a format of (yyyy-mm-dd), exam start time in a format of (HH:MM:SS) 24 hr, exam end time in a format of (HH:MM:SS) 24 hr, semester (Fall, Spring), exam location, registration deadline in a format of (yyyy-mm-dd).

* 1. Exam Options

This function allows a faculty member to manage the exams created. A faculty member can see the information of the exam created including exam type, date, start time, end time, semester, location, registration deadline. Also for each exam, it has the following options:

* + 1. View Registered

This function displays all the students registered for this exam. The student information displayed includes username, txstateid, lastname, firstname, results (registered or not), comments, and the total number of students registered for this exam.

* + 1. Edit Exam

This function allows a faculty member to edit the exam information including exam type, exam date, exam state time, exam end time, semester, exam location, registration deadline.

* + 1. Enter Results

This function allows a faculty member to enter the exam results (noshow, passed, failed) according to txstateid.

* + 1. View Results

This function displays the results of this exam. Displayed information includes username, txstateid, last name, first name, results (noshow, passed, failed), and statistics including the total results, how many passed, how many failed, and how many noshow.

* + 1. Publish Results

This function allows a faculty member to publish the exam results. Once the results are published, the students will be able to see their results in their interfaces.

1. **Student Records**
   1. View All

This function displays all student record information including txstateid, username, lastname, firstname, major, email, result of programming, result of communication, result of core, exam history (including exam name, exam date, exam result)

* 1. Add New

This function allows a faculty member to add a new student record. A new record includes: txstateid, username, lastname, firstname, major, email, programming result, communication result, each core course result, local phone, local address, local city, local state, local zip.

* 1. Search

This function allows a faculty member to search student records using txstateid, username, lastname, firstname, major, email, programming, communication, each core course.

* 1. Edit

This function allows a faculty member to edit student records. A faculty member can enter txstateid or username to find the student and edit lastname, firstname, major, email, programming result, communication result, each core course result, local phone, local address, local city, local state, local zip.

* 1. Change Result

This function allows a faculty member to change a student exam results by entering his/her txstateid or username. The results of programming, communication, and each core course can be changed here.

* 1. View Completed

This function displays all the students who have passed the programming, communication, and core exams. The information displayed includes txstateid, username, lastname, firstname, major, email, result of programming, result of communication, result of core.

1. **Functions used by Students**
2. **Login**

A student should login the website using username and password.

1. **Register Exam**

Once an exam is created, a student is able to register for the exam. A student should enter username, txstateid, lastname, firstname, major, email, local phone, local address, local city, local state, local zip. Once a student has registered for the exam, a faculty member can see this registration in the View Registered function.

1. **Withdraw Exam**

A student can use this function to withdraw from an exam. The student should give username and the exam to withdraw. Once a student has withdrawn an exam, the record seen by the faculty should be updated.

1. **View Exam Results**

After the exam results are published by faculty, a student is able to see his/her exam results.