#### **REPORT**

#### Introduction:

We are creating a website for a university. This website is used for managing academic program in Computer Science. Entity-Relationship Diagram (ERD) is required for the project to ensure that the database structure matches the functionality of the website. Students, instructors, administrators, program coordinators, and quality assurance officials are just a few of the user roles that the website supports. It functions as a platform for reporting, communication, assessment, and program administration.

The administrator is the one who is in total control of the website. They can manage users and their permissions and add, modify, remove courses and program objectives. Students can access courses, take exams and assessments in the platform while the instructors can manage the courses, create exams and assignments.

## Roles and responsibilities:

#### 1. Student:

- The students are the primary users of this platform.
- They get access to the academic program's goals and list of available courses.
- Use tests or evaluations to measure their performance.
- View their exam results.

#### 2. Instructor:

- The instructors can create and manage courses.
- They can create assessments and exams.
- Mark test results and offer comments.
- Track development and performance of students.

#### 3. Administrator:

- The administrator has overall control and management of the website.
- They can add, modify and remove courses and program objectives.
- They can manage all user accounts.
- They handle technical aspects.

#### 4. Program Coordinator:

- The program coordinator is responsible for overseeing the academic program.
- They are responsible for curriculum updates.
- Track student performance statistics and offer instructors and students any necessary direction or assistance.
- Review and assess the program on a regular basis to find areas that need improvement.

- 5. Quality Assurance Officer:
  - The Quality Assurance Officer is responsible for the quality and effectiveness of academic program.
  - Monitor and analyse student performance data to identify pattern.
  - To make appropriate program improvements.
  - Work together with the instructors and administrators to resolve any flaws.

## **Database Description:**

• Student: In this table all the information about the students is stored.

Primary key: student id

Courses, C.G.P.A, email, last name, first name and password are stored.

• Instructor: In this table the information about the instructor is stored.

Primary key: instructor\_id

Email, last name, first name are stored.

• Instructor courses: In this table the instructor courses are stored.

Primary key: course

Foreign key: instructor\_id

• Exam: In this table the information about exams are stored.

primary key: exam id

questions, duration, exam name, date, room, course id, instructor id are stored.

• Assess Result: In this table the exam results are stored.

primary key: result id

student\_id, exam\_id and score are stored in this table.

• Admin: In this table the information about the admin is stored.

Password admin id and email are stored

• Program: In this table the information about the program is stored.

Primary key: program id

Program name is stored in this table.

• Program objectives: In this table program objectives are stored.

Foreign key: program id

Objectives are stored in this table.

• Course: In this table information about course is stored.

Primary key: course id

Syllabus, room, course name and meeting time are stored in this table.

- Assessment: In this table the information about assessments are stored.
  Primary key: assessment\_id
  Tasks, due date, assessment name, course id, instructor id are stored in this table.
- Message: In this table the information about the messages are stored.
  Primary key: message\_id
  Instructor id, timestamp, content and student id are stored in this table.

## **Understanding of the Project:**

- Homepage: The homepage provides the overview of academic program and its objective.
- Courses: The website allows students to view the courses offered in the program, the instructor is responsible for managing the courses
- Academic program: This page displays the list of program objectives along with their descriptions.
- Exams and Assessments: This page allows students to take exams, submit assignments and the instructor to grade them. The website also provides a way to track and record student progress in these exams.
- User accounts: This page is responsible for user authentication and account creation for students, instructors, and administrators.
- Reporting and Analysis: This page produce reports and visualizations to display information about program performance.
- Feedback and Communication: This allows students, instructors, and administrators to communicate through messaging or discussion forms.
- Administration Panel: Administrators have the right to manage courses, program goals, exams and user accounts.
- Responsive Design and Accessibility: This website is designed to be responsive to different screen sizes and browsers.

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