SLIIT
Discover Your Future

SE3040 -Application Frameworks

Group Project

Software Engineering - Year - 3 **Semester 1, 2019**

Student and Instructor Information System

As part of your SE3040 – Application Framework Group Project you will develop a Web application that serves as a Student and Instructor information system. System functionality as follows;

1. There are three user roles admin, instructor and students.
2. Admins can create other admins and instructors. Students need to sign up to the system.
3. Once admin creates an instructor, it should be notified to the instructor via email.
4. Admins can create courses and add instructors to course. Instructors should get notifications on new course creations when logged in to the system. After instructor accept the course Students can join the course.
5. Instructors can create assignments and exams for a course with due dates. Student should get notifications on these. Instructor can edit these dues dates (only to a later date than the original one).
6. Students can upload files for assignments and exams before the due date. Instructor should be able to view these files and enter marks for the assignment or exam. Student will get notified on these markings.
7. System should be secured and cannot be accessed without proper authentication.
8. Authorization should be maintained and students cannot create, edit assignments or exams.

You need to use the following technology stack as part of your solution. Marks will be allocated for the appropriate use of each of the technologies.

1. HTML/Java Script front end
2. React
3. Node JS
4. Express JS
5. Spring Boot Framework
6. JSON base Web Services
7. NoSQL Database

Your backend should be an API running JSON based web services. The front-end application that you are developing should communicate with the back end only using these web services.

Plagiarism and use of existing code

You can use any additional Javascript framework which is not listed above, but it should be acknowledged.

You cannot use any other codebase which is either public or private,

The codebase which is presented as part of your project should be written only by members of your group.

Requirements of Project Implementation

1. You need to split your project among your team vertically. Each student is responsible for end to end implementation of a particular feature. This is somewhat similar to what you would have done in your 2nd year project.

2. Your database should be MongoDB.

3. You are required to maintain GitHub code repository/GitLab for your project. You should properly commit code at an individual level right throughout the project life cycle.

4. You should show evidence of testing your application by including test cases

5. A user guide should be provided.

6. A technical report describing your project should be provided.

7. Your individual blog can be used to describe your experience doing the project and a critical reflection on what you have done. At least one unique entry related should be there for each student.

8. Deploy the project to the Cloud before the final presentation. Your final demo should be run from the Cloud. Details of how to use Cloud Provider will be provided later.

Submission Deadlines

Final Presentation – 10 days after the Final Examination is over

Final Report Submission – During Final Presentation