BSc (Hons) in Information Technology
Specializing in Software Engineering
Year 3 - 2021
SE3040 – Application Frameworks
Group Project

Conference Management Tool

As part of your SE3040 – Application Framework Group Project, you will develop a Web application for a Conference management tool. SLIIT is organizing an academic conference where researchers present results, workshops, and other activities. It is named "International Conference on Application Frameworks" – ICAF. Here, researchers will present their latest findings and implementations of different programming languages including Java, JavaScript, Python, … Conference will be physically held at SLIIT. Only registered participants can attend the event.

System functionality will be as follows,

1. There are three roles as admin, editor, reviewer, and user.
2. Anyone can view the conference details as a guest
3. Only users who register have access can submit the research papers, conduct workshops, or present their research-related activities(you can define them).
4. Editors can add the conference details and edit
5. Admin must approve the editor's content before it appears on the website.
6. The final product must contain the following
    a. A landing page that shows all the related information including venue and date.
    b. Download page where the research paper templates, workshop PowerPoint templates, and other templates can be download.
    c. Separate pages for each of the main events in the conference. (Research paper presentations, workshops, etc.)
    d. A registration page where a user can be registered as a researcher, workshop presenter, or attendee.
    e. When the researcher registered to the system, the research paper should be uploaded alongside the contact information.
    f. When the workshop conductor is registered to the system, a proposal containing all the necessary details about the workshop should be uploaded alongside the contact information.
    g. When the user is registered to the system all the necessary contact information should be uploaded.
7. Reviewers should be able to see the research paper uploads and workshop detail uploads in separate pages. The uploads must be available to view.
8. Reviewers can approve or decline the research papers or workshop proposals. And notification should be sent to the relevant user.
9. Attendees must pay upfront to register for the conference (you can come up with the amount)

10. Research paper presenters must pay if their papers got approved to present them at the conference.
11. Workshop conductors don't have to pay.
12. Admin should be able to monitor all these activities in a dashboard (you can decide the format)

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

1. HTML/JavaScript frontend
2. ReactJS
3. NodeJS
4. KoaJS
6. JSON based Web Services
7. NoSQL Database (MongoDB)
8. JEST

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

Marks will be allocated for deploying the solution using any cloud based solution.

Plagiarism and use of existing code

- Use React related Technologies only
- Do not use any boilerplate code or code generators. Buid from scratch
- 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.

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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 online code repository(GitHub, BitBucket, 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.

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Marking Rubric

Note that the project will be evaluated individually (Unless specified) according to the below criteria.

Criteria	Marking Distribution
User Interfaces look professional and consisten	15
Fetures are comprehensive and user friendly	20
Implementation of the RESTful web services	15
Implementing database and Mongo collections	10
Implementation of unit tests	10
Coding Standards and quality	5
Deployed in the cloud	5
Maintaining online git repository	5
Technical Report (Group Mark)	5
User guide (Group Mark)	5
Presentation	5
Total	100