**Project Name: Staff (University Social Media Platform)**

**Summary & Domain:**

* **Domain**: **Education**
* **Summary**: The application is a university-branded platform designed to facilitate interaction and collaboration between **faculty** and **students** in an academic social network environment. By allowing staff to showcase their academic contributions and enabling students to engage with them, the application enhances the university's reputation and creates a connected academic ecosystem. The platform supports features like staff profiles (publications, research, responsibilities), content sharing, online discussions, club and event access, and student queries via a callback feature. The platform is powered by **Spring Boot**, secured by **Spring Security**, and backed by a **MySQL** database.

**User Stories**

1. **Student Registration & Interaction**
   * Student should register, follow my professors, and like, comment, or share their posts.
   * Student able to participate in online discussions related to my subjects.
   * Student able to access information about clubs and upcoming university events.
   * Student able to submit queries through a "request a callback" form.
2. **Staff Profile Management**
   * Staff able to update my profile with my achievements, research, experience, and publications.
   * Staff able to create posts related to my subject or college.
   * Staff able to interact with students and answer their questions in online discussions.
3. **Search & Sorting**
   * As an admin or user, able to sort staff based on their designation and campus.

**Key Stakeholders**

* **University Administration**: Responsible for overall university branding and student engagement. They are interested in the app's impact on student-staff interactions and university reputation.
* **Faculty Members**: Looking to share their expertise, research, and updates with students while engaging in discussions.
* **Students**: Interested in following staff for learning purposes, engaging with subject-related content, and receiving answers to academic queries.

**Problem Statement**

Universities often struggle to create a cohesive platform that allows students to interact with faculty outside of the classroom setting. Moreover, there is a need for real-time discussions and information sharing between students and faculty members in a way that strengthens the university's brand. Existing tools often lack comprehensive engagement features and are not fully integrated with university resources like clubs and events.

**Use Cases**

1. **Staff Posting and Interaction**
   * Staff can post subject-related content, and students following them can engage by liking, commenting, or sharing the post.
   * Staff can answer questions in online discussion threads.
2. **Student Participation in Online Discussions**
   * Students can participate in thread-based discussions, similar to platforms like Quora or StackOverflow, and get answers from staff or other knowledgeable peers.
3. **Event and Club Access**
   * Students can view information about upcoming university events and join clubs.
4. **Callback Request Submission**
   * Students can submit queries via a callback form, which gets directed to the relevant department or staff member.
5. **Sorting of Staff Members**
   * Admins and students can sort staff based on their designation and the campus they belong to.

**Your Role**

As the **backend developer**, you:

* Designed and implemented the backend architecture using **Spring Boot**.
* Handled **authentication and authorization** using **Spring Security** to ensure secure user access.
* Managed **user profiles**, post interactions, and discussion threads.
* Developed the **"request a callback" feature** and integrated the event and club access functionality.
* Ensured efficient data storage and retrieval using **MySQL**, optimizing database queries to support sorting and filtering.

**Outcome & Results**

* The application successfully fostered a stronger connection between staff and students by providing a unified platform for academic and extracurricular interaction.
* Faculty members actively shared updates, and students engaged with these posts, creating a dynamic learning environment.
* The "request a callback" feature streamlined student queries, improving communication with administrative departments.
* Positive feedback from students and staff on the app's ease of use and ability to host meaningful academic discussions.

**Learning Experience**

* Gained hands-on experience with **Spring Boot** and **Spring Security** for user management and authentication, enhancing your expertise in securing web applications.
* Worked extensively with **MySQL**, improving your ability to design and optimize database queries for better performance.
* Tackled the challenge of implementing **thread-based discussions** that required efficient data storage and retrieval for smooth real-time interactions.

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