Form a Team

Member's roles:
- Smile: Documenting
- Viana: Testing
- Lunjia: Designing
- Elizabeth: Housekeeping

Tools/frameworks/programming languages we will be working with:
- Java
- Springboot
- Angular
    - HTML5
    - CSS
- MongoDB

Time slot for weekly meetings:
- Every Tue 3:00 pm
- Meeting with TA will depend on our process.

Project Proposal - Youtube Clone

General Introduction + Purpose

In this project, we outline the plan to develop a Youtube clone using a Full Stack approach with Spring Boot and Angular. It aims to replicate core functionalities of the popular video-sharing platform to provide a platform for users to upload, share, and view video content. It will offer features such as user authentication, uploading, commenting, liking/disliking videos, subscriptions, and a recommendation system. This project will serve as an educational and practical endeavor to apply software engineering principles in building a complex web application.

Key Features & Functionality:

User Authentication and Authorization: The application will implement a secure authentication and authorization mechanism, allowing users to sign up, log in, and manage their profiles.

Video Uploading and Streaming: Users will be able to upload videos to the platform, which will then be processed and stored efficiently to allow for smooth streaming. This involves handling large files, transcoding for different resolutions, and delivering content through a content delivery network (CDN) for global accessibility.

Commenting Systems, Like/Rating Systems, Subscription Management, Recommendation Engine: Users will be able to like and comment on videos to increase engagement. The platform will also allow users to subscribe to content creators that they are interested in, which will allow for a more personalized experience. A recommendation engine will also be developed to suggest videos to users based on their viewing history, preferences, and popular trends, mimicking YouTube's approach to keeping users engaged with relevant content.

Search Function: To enhance user engagement, the platform will feature a sophisticated search functionality allowing users to find videos by titles, tags, or content description.

Stakeholders/Actors:

Users: The primary stakeholders of a YouTube clone would be the users who will interact with the platform. This includes content creators who upload videos, viewers who watch videos, subscribers who follow channels, and commenters who engage with content.

Development Team: The team responsible for designing, developing, and maintaining the YouTube clone are stakeholders. This includes software engineers, designers, product managers, and other technical staff involved in the project.

Content Creators: Individuals or organizations who create and upload videos to the platform are stakeholders. Their satisfaction with the platform's features, monetization options, and content policies is crucial for user retention.

Advertisers: Advertisers who pay to display ads on the platform are stakeholders. They are interested in reaching the platform's audience effectively and may have specific requirements or expectations for ad placement and targeting options.

Content Moderators: Individuals responsible for moderating user-generated content, enforcing community guidelines, and addressing violations are stakeholders. Their tools, training, and support systems affect their ability to maintain a safe and welcoming environment on the platform.

Legal Advisors: Legal advisors or legal teams providing guidance on copyright issues, terms of service, user agreements, and other legal matters are stakeholders. Ensuring compliance with applicable laws and regulations is essential for risk management and liability protection.

Platform Partners: Companies or organizations that collaborate with the platform, such as hosting providers, content delivery networks, payment processors, and analytics providers, are stakeholders. Their services and integrations impact the platform's performance, scalability, and functionality.

Management Team: Project managers, executives, and other members of the management team overseeing the project.

Process:

Method: Plan driven methodology
Size: Four people
Criticality: Program will only impact comfort and entertainment, so it is not extremely critical
Dynamism: Technology will not change extensively over the course of a semester, and our final software does not evolve dynamically either.
Personnel (skill level): Level 1B
Culture (Predictability/order vs change): Predictability/order