I.   Team Member Introduction & Project Ideas/Requirements

Project Requirements: must be aesthetically pleasing in regards to UX/UI, must implement multithreading, and must require a Java-developed backend.

Name	Stack	Role
Trevor	Python, C++, Java	Front/Design/Etc
Khatelyne	Java, Python	Backend
Edwin	Java, C++, SQL, Python	Front End
Christian	Java, Python, C++	Backend
Vinh	Java	Design/UX
Mei	Java, Python, C++	Backend
Alex	HTML, LL, SQL, C++, Java	Front

Description	Features
Showjo (Web Service): A platform to stream and watch shows/music with friends.	● Video/Audio Live-Streaming ● Voice-activated avatars light up ● Text-Chat
Alarm/Timer (Standalone): Set timers, alarms, and provide some progress tracking.	● Set time commitment goals, and track daily progress toward those goals. ● Alarm clock
Drip: Picks current clothes/advertises clothes based on the weather.	● Upload photos ● Forums for outfit ideas ● Shopping
Multiplayer Minesweeper: Multiple players take turns opening up spaces	● Chat ● Score - time spent
Project Management (Web Service): Project management platform to create and track project progress	● Create tasks and assign to team members ● Set deadline for each task ● Generate graphs for task tracking/trends
AI YouTube Player: Speech-to-text AI to help find the perfect video you're in the mood for.	● Implements ChatGPT API ● Features a minimalistic UI ● Takes Time/Date/Weather to play moody music/videos
Foreign Language Exchange: Meet other users from different backgrounds to practice speaking or chatting.	● Chat with different languages ● Voice chat ● Forums and threads

II. Concept Document: Project Management

An idea along with a brief overview of the project which highlights how we will use a GUI and multi-threaded code. The specifics of the implementation and other parts of the project that will come in future documents.

Project management is an essential function in any organization that aims to successfully achieve its objectives. The success of a project relies heavily on how efficiently the project is planned, executed, and monitored. This is where a project management application comes in handy. A project management application is a software tool that enables teams to efficiently manage their projects from start to finish. It streamlines the entire process, from task allocation to tracking progress, to team collaboration and communication. In essence, it acts as a central hub where all project-related activities are organized and executed, making it easier for teams to achieve their project goals on time and within budget. In this fast-paced world, a project management application has become a necessity for any organization that wants to stay competitive and ahead of the game.

The objective is to develop a website to help manage teams working on a project. The sub objectives are to assist in group productivity and communicating tasks between teammates Also, develop a sort of progress tracker to allow users to visualize project progression. Furthermore, we need a solution for new users to sign up and join a project group.

III. High-Level Requirements

Document detailing client-requested performed tasks and program behavior.

We need to create a web app to provide a platform for easier team management as well as ease of tracking team progress. The program will prompt users to create an account with the service to record, allow data editing, and provide input on graph customization. Users will mark off subtasks to progress through their objective. This in turn will generate and return a visual depiction of their team's progression. Users may also request for the to-do list data and keep track of important dates and deadlines.

1. Task management: A project management application allows teams to create and assign tasks to team members, set deadlines, and track progress towards completion.

2. Project planning: The application allows teams to plan projects by setting goals, defining objectives, identifying resources required, and creating timelines.

3. Resource allocation: A project management application enables teams to allocate resources such as people, time, and money to various tasks and activities.

4. Collaboration and communication: The application provides a platform for teams to collaborate and communicate with each other, share ideas, and exchange information in real-time.

5. Budget management: A project management application helps teams manage project budgets by tracking expenses, monitoring costs, and forecasting future expenditures.

6. Reporting and analytics: The application provides insights into project progress, team performance, and other critical metrics through customizable reports and analytics.

7. Risk management: A project management application allows teams to identify and manage risks associated with a project, develop contingency plans, and mitigate potential risks.

IV. Technical Specifications Document

Technical specifications based on requirements document . Clearly delineate any revisions regarding features stated in specifications.

Web UI
- Login page with username, and password text boxes and a login button. Also a register new user button, and a forgot password button.
- After password verification the user should be presented with the tasks and progress pertinent to whichever project they're attached to, and initially with being told to join or start a project.
- People with suitable permission on the project can create invite codes or links which can be given to other users to join their project.
- Whoever creates the project administrates the project and sets roles for other team members on their project.
- Using a front end framework to be determined after the lecture on web dev.

Database Structure
- SQL database to retrieve plain text user login information.
- Databases should include: userID, password, first name, last name, activity status, role/title, and profile picture.
- Account Creation should prompt for: userID, username, password, first name, last name, and role/title.

Graph Generation
- PNG visualization from data populated by team progress.
- Various shades from blue to present degree of activity/progress.
- External Java Library to visualize data as graphs.