**Project Proposal**

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**1. Introduction**

**Background and Purpose**

Many individuals participate in an online game by the name of Eve. Being able to track market pricing, build costs, and character management is severely lacking. The aim for the app is to create a real-time application for players to track all of these utilities and be able to select which utilities are of most importance to them. It should be able to connect to the server in real-time and be up-to-date with what the game is showing. This will make gameplay more efficient for the players that participate. The interface will be user-friendly.

**Scope**

The gaming app will provide users with the capability to:

* Track market pricing in real time and possibly providing market place locations to partake in commerce trading
* Track specific utilities that are of importance to each individual user.
* Show up-to-date building costs
* Allow users to sync and access their gameplay data from multiple devices

**2. Technology Stack**

**Front End**

* **Technology**: React.js
* **Reasoning**: React.js is known for its component-based architecture and extensive community support. It allows for creating dynamic and interactive user interfaces.

**Back End**

* **Technology**: Node.js with Express.js
* **Reasoning**: Node.js is a fast, scalable, and highly performant server-side JavaScript runtime. Express.js is a lightweight and flexible framework that simplifies API development.

**Database**

* **Technology**: MongoDB
* **Reasoning**: MongoDB is a NoSQL database that can efficiently handle financial data storage. It is scalable, flexible, and can accommodate future data requirements.

**3. Initial Features**

**User Stories**

1. **User Registration**
   * *As a new user*, I want to create an account with my email and password, so I can access the gaming app.
2. **User Login**
   * *As a registered user*, I want to log in to the application using my credentials to access my gameplay data.
3. **Favored Utility Tracking**
   * *As a user*, I want to track gameplay utilities that I find are relevant to the course I am wanting to follow in gameplay.
4. **Up-to-Date Utility Tracking**
   * *As a user*, I want to be able to track my favored utilities and I want the information to be reflective of what is currently available on the server.
5. **Gameplay Tracking**
   * *As a user*, I want to be able to see what my current statistics are.
6. **Sync Across Devices**
   * *As a user*, I want my gameplay data to be synchronized and accessible on multiple devices.

**4. Source Control**

**Technology**

* **Version Control System**: Git
* **Repository Hosting**: GitHub

**5. Deployment**

**Hosting Platform**

The application will be deployed to Google Cloud for scalability, reliability, and ease of use. Google Cloud offers a range of services that are well-suited for web application hosting, ensuring optimal performance and uptime.

**6. Meeting Minimum Project Requirements**

**Compliance**

To meet the minimum project requirements, we will adhere to the following key principles and practices:

* **User-Centered Design**: Prioritize user experience through iterative design and usability testing.
* **Data Security**: Implement encryption for user data and adhere to security best practices.
* **Scalability**: Design the application architecture to accommodate growth in user base and data volume.
* **Testing and Quality Assurance**: Implement rigorous testing, including unit, integration, and user acceptance testing.
* **Documentation**: Maintain comprehensive documentation for code, deployment, and user guides.
* **Agile Development**: Follow agile methodologies, ensuring flexibility in development and quick response to user feedback.
* **Accessibility**: Ensure that the application is accessible to users with disabilities.

This project proposal outlines the plan for developing a gameplay application, providing details on the statistical stack, initial features, source control, deployment, and how the project will meet the minimum requirements. The project will ease a player’s ability to be able to track and utilize utilities that are present in the current gameplay.

Note: Applications used will be subject to change based on the direction of the project. If there are changes, they will be noted in the daily stand-ups.