

StudyQuest

Students: Cesar Vargas, Richard Aguado, Markus Berrios, Alfredo Medina, Christopher Schur

Instructor/Faculty: Masoud Sadjadi, Florida International University



PROBLEM

Managing daily tasks effectively is a challenge for students, particularly when balancing academics, personal goals, and extracurricular activities. Existing tools lack engaging features that motivate consistent use and completion of tasks.

CURRENT SYSTEM

The existing tools, such as google tasks, focus more on organization and lack features that can be more rewarding and engaging for the user. It also lacks a community feature that would help inspire productivity from its user in seeing how active others are as well.

REQUIREMENTS

- Allow users to add, edit, and delete tasks.
- Store tasks with attributes like title, description, priority, and deadline.
- Update task statuses.
- Reward users for each task they complete.

SYSTEM DESIGN

- Reach would work as the frontend.
- Firebase would be the backend to store all the data the user inputs for their tasks.
- The UI design would resemble gaming menu so the user feels more rewarded when completing their tasks.

OBJECT DESIGN

- Task: Represents a task with attributes such as title, description, deadline, priority, and status.
- Task List: Will display the list of created tasks so the user can interact to either mark as completed or edit in any of the fields that need to be changed.
- Total Points: Keep track of the users progress in completing their tasks and the points they accumulated from them.

IMPLEMENTATION

Frontend: React for the UI.
Backend: Firebase Firestore for real-time database operations.
Language: JavaScript for the code.

VERIFICATION

- Ensured task creation and editing functionalities work as intended.
- Verified that deadlines cannot be in the past.
- Tested Firebase integration for task storage and retrieval.

SUMMARY

The Task Management System is a core feature of StudyQuest, enabling users to manage tasks efficiently while integrating gamified elements for increased motivation. The system ensures real-time syncing and a responsive UI, making task tracking seamless and enjoyable.

REFERENCES

- Firebase Documentation: <https://firebase.google.com/docs>
- React.js Documentation: <https://react.dev/learn>