StudySync: A React Native Study Planner for Academic Task Management and Productivity

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**Abstract**

The project aims to develop **StudySync**, a feature-rich mobile app designed to help students maintain consistent study routines and stay on top of assignments and deadlines. Built using React Native, the app will incorporate essential course concepts such as component-based UI design, seamless navigation using the React Navigation library, robust data management, and storage integration via AsyncStorage for offline access. StudySync will support the complete CRUD lifecycle for study tasks, enabling users to conveniently add, view, update, and delete their academic activities. The app will offer a clean and intuitive interface, a dashboard view for tracking upcoming or day-specific tasks, and a visual progress tracker that reflects study consistency to enhance user engagement and motivation. Two of the three team members will contribute equally by developing one central feature each, ensuring a fair division of development responsibilities. The team will collaborate using GitHub Codespaces, where project progress and individual contributions will be documented in a dedicated MEETINGS.md file. Final deliverables will include the fully functional mobile app, a detailed report, presentation slides, and a concise demo video.

**Keywords:** React Native, Study Planner, Mobile App, Academic Productivity, Task Management, CRUD Operations, AsyncStorage, Navigation, Components, UI/UX

1. **INTRODUCTION**

In busy student life these days, students must balance their study patterns, deadlines, and coursework appropriately. While there are some computer tools that are beneficial, they all either contain unnecessary features, poor personalization’s, or require continuous internet access. With all those things in mind, StudySync was designed as a simple, handy mobile application that allows students to plan, schedule, and track their coursework intelligently.

Built on React Native, StudySync is a forerunner in simplicity, speed, and ease of use. It also provides users with the option to define and retain custom field tasks like title, subject, due date, and priority. AsyncStorage stores data locally in the application with full offline support. StudySync is built as an open-source, module-driven project, and StudySync lays the groundwork for future possible additions like cloud sync, authentication, and AI-based study tips.

With the combination of effective UI and most essential productivity features, StudySync allows students to stay in sync with course material and align with their own learning pace and interests., we aim to identify the most accurate classifier for detecting fake news. Furthermore, we conduct comparative analyses with prior research utilizing the same dataset.

1. **Literature Review**

Study planner apps are getting popular as web-based tools to help students plan timetables for their schools, helping them monitor deadlines, and boosting productivity. Existing apps like MyStudyLife, Todoist, and Notion have various task management features with drawbacks like requiring an internet connection, having complicated interfaces, or lacking school-based personalizations.

Johnson & Sharma (2022) state that contemporary mobile app development focuses on responsive design, offline functionality, and component-driven architecture — ideals followed in StudySync through React Native and AsyncStorage. Local storage utilization is consistent with the requirement for continuous task data access, as prioritized in mobile-first design literature.

React Navigation (n.d.) also supports the need for seamless user experiences through natural routing and screen transitioning, a basic element of StudySync's infrastructure. The app's CRUD operations and clean UI also reflect the usability principles set by Anderson & Krathwohl (2001), who call for the need for well-organized learning tools in facilitating higher cognitive engagement.

By appealing to both academic literature and policy documents, StudySync is not only introduced as a helpful tool but also as a pedagogically valid mobile solution to student productivity.

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