

Project Time Tracker

Problem Statement

Managing and tracking time spent on various tasks is often challenging. Users need an efficient and private way to track their work hours, categorize tasks, and view productivity without manual entry. The app should ensure data privacy and allow users to track their time securely.

Description

The Project Time Tracker allows users to securely log in via Firebase Authentication and track the time spent on various tasks. The app provides an easy-to-use interface for users to categorize their tasks, start and stop timers, and view their productivity reports. It ensures privacy by storing only task-related data in Firebase, without revealing any personal details. The app helps users manage their work hours, plan efficiently, and track progress over time.

Technology Stack

- Frontend: Flutter framework (Dart)
- Backend: Firebase Firestore for storing time tracking data
- Authentication: Firebase Authentication for secure login
- State Management: Provider or Riverpod (optional for managing task data and timers)

Key Features

1. Login Required: Users must log in before tracking time (using email or social login).
2. Task Time Tracking: Users can start and stop timers for specific tasks to track work hours.
3. Task Categorization: Tasks can be categorized (e.g., work, meetings, development, etc.).

4. View Productivity Reports: Users can view time reports for each task and get insights into their productivity.
5. Privacy Ensured: No personal details are linked to tracked tasks; only task-related data is stored in Firebase.
6. Task Editing/Deleting: Users can edit or delete tasks and the associated time logs.

Firebase Setup

- Firestore: Stores time tracking data (task name, start time, end time, category, etc.).
- Authentication: Users log in securely via Firebase Authentication.

Basic Flow

1. Login: Secure user login (email or social).
2. Track Time: Users can create tasks, start/stop timers, and categorize tasks.
3. View Reports: Users can view their tracked hours and productivity.
4. Edit/Delete: Users can manage their tasks and time entries.

Conclusion

The Project Time Tracker provides an efficient way for users to track their time spent on various tasks while ensuring their personal data remains private. Built with Flutter and Firebase, it offers a simple yet powerful time management solution.