

# Habit Tracking App - Progress Documentation

# Project Overview

This document provides a summary of the work progress for the Habit Tracking App developed in Flutter. The project spans over four weeks, with each week focused on specific tasks that contribute to the complete development of the app. The contributions of each team member are highlighted below.

## Week 1: UI Design Implementation

During the first week, we implemented the user interface for all features of the Habit Tracking App. The goal was to create visually appealing and intuitive designs that provide a good user experience. The following activities were completed by team members:

1. **Splash, Onboarding, Sign Up, and Sign In Screens:**
  - *Implemented by Nadeen Essam:* Created the UI for the splash screen, onboarding screens to guide new users, and sign-up/sign-in screens for user authentication.
2. **Create Custom Habit Screen:**
  - *Implemented by Mohamed Khalid:* Developed the UI for adding a new custom habit, allowing users to specify the habit name, schedule, and reminder preferences.
3. **Settings and Progress Screens:**
  - *Implemented by Nada Yasser:* Created the settings screen to manage preferences and developed the progress screen to display detailed habit completion history and streaks.
4. **Home Screen and Timer Screen:**
  - *Implemented by Hazem Mahmoud:* Developed the home screen showcasing daily habits, and statistics, as well as a timer screen for habits that require time tracking.
5. **Notification Screen:**
  - Designed to show upcoming or missed habit notifications.

## Week 2: Local Data Storage Using Hive

In the second week, we implemented the logic for storing data locally using the Hive package, with the following activities:

1. **Local Data Storage Logic:**
  - *Implemented by Nada Yasser:* Integrated Hive into the project and developed the logic for storing, adding, updating, deleting, and retrieving habit data locally.

## Week 3: Authentication and Push Notifications

The third week focused on adding authentication and push notification features:

### 1. **Firestore Integration:**

- *by Mohamed Implemented:* Set up Firestore Authentication for the project and implemented sign-in and sign-up functionality using email/password and Google sign-in.

### 2. **Local Push Notifications and Progress Logic:**

- *Implemented by Nada and Hazem:* Worked together to implement the logic for tracking habit progress and integrated local push notifications. Utilized the `flutter_local_notifications` package to schedule and deliver reminders for habit completion.

### 3. **Testing:**

- Verified that users could register, log in, and log out.
- Tested push notifications for different habit reminder times to ensure they were triggered accurately.

## Week 4: Feature Completion and Testing

The fourth week was dedicated to testing all implemented features and ensuring the app's stability. The activities completed include:

### 1. **Feature Testing:**

- Conducted thorough testing of all features, including adding, updating, and deleting habits, authentication, and notifications.
- Identified and fixed bugs related to data synchronization and UI inconsistencies.

### 2. **Completing Pending Features:**

- Reviewed tasks from previous weeks and completed any partially implemented features.
- Enhanced the onboarding experience by adding tutorial content for new users.
- Improved error handling in authentication and data storage modules.

### 3. **Final Adjustments:**

- Optimized performance by reducing unnecessary rebuilds and improving database query efficiency.
- Performed UI refinements based on user feedback to ensure an intuitive and engaging experience.

## Summary

The Habit Tracking App has developed over the course of four weeks, with each team member contributing as follows:

1. **Nadeen:** Implemented the UI for the splash screen, onboarding, sign-up, and sign-in screens.
2. **Mohamed:** Developed the create new habit screen and integrated Firebase Authentication.
3. **Nada:** Implemented the settings and progress screens, added local data storage using Hive, and worked with Hazem on the progress logic and push notifications.
4. **Hazem:** Developed the home screen and timer screen and collaborated with Nada on implementing the progress logic and push notifications.