# 4 Week development plan

## Week 1: Setup project, database and basic UI

1. **Project Setup**

* Duration: 1 day
* Tasks we must do:
  + Set up the Flutter project [DONE]
  + Integrate Firebase into the project for authentication[DONE] and database storage.

1. **Database design and firebase setup**

* Duration: 1 day
* Person responsible for section: Unassigned
* Tasks we must do:
  + Create Firestore collections: users, recipes, grocery lists, meal plans
  + Define the data structure for user profiles, recipes, grocery lists, etc., according to the information scope.
  + Ensure Firebase Authentication for login and user account creation is in place, with encrypted credentials and dietary preferences.

1. **Basic UI and navigation**

* Duration: 2-3 days
* Person responsible for section: Unassigned
* Tasks we must do:
  + Implement core UI components using Figma designs
  + Build basic navigation between screens: login, home, recipe search, meal planning, grocery lists, etc
  + Ensure there’s a placeholder for offline functionality.

1. **Recipe data (API integration or mock data)**

* Duration: 1-2 days
* Person responsible for section: Unassigned
* Tasks we must do:
  + Set up a recipe API (e.g., edamam) or use the data from our recipe csv file
  + Implement basic functionality to pull and display recipe data.

## Week 2: Core features and backend integration

1. **Search and filter recipes**

* Duration: 2-3 days
* Person responsible for section: Unassigned
* Tasks we must do:
  + Develop the search functionality, allowing users to input ingredients, dietary preferences, or keywords.
  + Implement filters based on ingredients and dietary needs.
  + Optimize the search for quick results and local caching for frequently viewed recipes.

1. **Meal planning**

* Duration: 2-3 days
* Person responsible for section: Unassigned
* Tasks we must do:
  + Create the UI for users to select recipes and assign them to specific days of the week.
  + Allow users to customize their meal plans and sync them with the cloud.
  + Implement local caching for meal plans to allow offline access.

1. **Grocery list generation**

* Duration: 2-3 days
* Person responsible for section: Unassigned
* Tasks we must do:
  + Develop the functionality to auto-generate a grocery list based on selected recipes.
  + Enable users to edit and customize grocery lists before saving them
  + Ensure grocery lists can be saved offline and synced when the user regains connectivity.

1. **Grocery list generation**

* Duration: 2 days
* Person responsible for section: Everyone
* Tasks we must do:
  + Develop the offline mode for recipes, meal plans, and grocery lists
  + Implement synchronization logic between local and cloud storage (Firestore).

## Week 3: Recipe sharing, moderation and reports

1. **Recipe sharing**

* Duration: 2 days
* Person responsible for section: Unassigned
* Tasks we must do:
  + Allow users to upload typed or handwritten recipes
  + Ensure images and data are saved securely in the cloud.
  + Implement UI for uploading photos and adding recipe details.

1. **Recipe moderation**

* Duration: 1-2 days
* Person responsible for section: Unassigned
* Tasks we must do:
  + Build a system where submitted recipes go through moderation before being published
  + Implement an admin interface for moderators to approve or reject recipes.

1. **Notification and sync alerts**

* Duration: 1-2 days
* Person responsible for section: Unassigned
* Tasks we must do:
  + Set up push notifications to alert users about new recipes, meal plan reminders, and sync updates.
  + Notify users when their data has been successfully synced after going online.

1. **Report generation (Admin reports)**

* Duration: 2 days
* Person responsible for section: Unassigned
* Tasks we must do:
  + Develop basic reporting functionality for admins to view the most searched, tried, or liked recipes.
  + Generate reports for recipes requiring moderation.

## Week 4: Final touches and testing

1. **Finalize remaining features**

* Duration: 2 days
* Person responsible for section: Everyone
* Tasks we must do:
  + Complete any pending features such as customizing recipes, step-by-step instructions with timers, and switching between metric/imperial units
  + Ensure all features are fully integrated and functional.

1. **Do comprehensive testing**

* Duration: 3 days
* Person responsible for section: Everyone
* Tasks we must do:
  + Conduct unit tests for individual components (search, meal plans, grocery lists, etc.).
  + Perform integration testing to ensure smooth communication between frontend and backend (Firebase).
  + Conduct usability testing to ensure the UI/UX is intuitive.
  + Test the offline mode and sync functionality thoroughly.
  + Ensure encryption and security measures are working as expected.

1. **Debugging and refining**

* Duration: 1 day
* Person responsible for section: Everyone
* Tasks we must do:
  + Fix any bugs or issues reported during testing.
  + Refine UI elements and user experience based on feedback we may receive .