Developer Guide

# App Name: Green Living Hub App

## Overview:

Green Living Hub is a mobile application built to promote eco-conscious living. It allows users to join green communities, share tips and achievements, track their carbon footprint, discover green events, and access sustainable lifestyle guides.  
  
This guide helps developers understand the app's functionality and logic to maintain or extend its features.

## Technology Stack:

- Flutter  
- Firebase (Authentication & Backend Services)

## Module Descriptions:

1. App Bar & Drawer Module

- The App Bar appears on every page and includes the app name and Login/Signup button.  
 - The Drawer menu contains options: Home, About, and Contact Us.

2. Authentication Module

- Utilizes Firebase Authentication for user login and signup.  
 - Login Page: Allows user to enter email and password. Displays 'Welcome Back'.  
 - Signup Page: Allows account creation with Full Name, Email, and Password.  
 - Includes navigation between login and signup pages.

3. Home Page Module

- Default landing page after successful login.  
 - Displays feature cards leading to specific functional pages.

4. Feature Pages (Card-Linked Pages)

- Join Communities  
 - Share Tips and Success Stories  
 - Share Achievements  
 - Customizable Sharing  
 - Engaging User Interface  
 - Visual Achievements Page  
 - Discover Events  
 - Track Carbon Footprint  
 - Eco-Friendly Shopping Guide  
Each card on the home page links to its respective page for interaction or display.

## Firebase Integration:

- Firebase Authentication is used for managing user login and signup securely.  
- Firebase can also be extended to use Firestore for storing tips, events, or achievements.

## Navigation Flow:

1. App launches → checks Firebase login status  
2. If logged in → Home Page is displayed  
3. If not logged in → User is redirected to Login Page  
4. Navigation handled using Flutter’s Navigator for routing between pages

## Future Enhancements (Suggestions):

- Add real-time posting and comment system for community interaction  
- Store and fetch content from Firebase Firestore  
- Integrate user profiles with eco-points or badges  
- Enable dark mode and accessibility features  
- Social media sharing of user achievements