ECO SHARE

Brief about your solution and problem statement addressing

In daily life, many usable resources such as food, clothes, books, and stationery are wasted, while people in nearby communities struggle to access the same essentials. This gap exists due to the absence of a simple and unified sharing platform, as current solutions are either limited to specific use cases or are not accessible to common users. As a result, valuable resources remain unused and are eventually discarded. EcoShare is a web-based platform designed to bridge this gap by allowing users to post surplus resources and enabling nearby users to discover and claim them in real time. By promoting community-level sharing, EcoShare encourages responsible consumption and significantly reduces everyday waste.

a.How different is it from any of the other existing ideas?

- Existing platforms focus only on one category (food / clothes / charity).
- Our solution is a general platform for any type of usable resource.
- Focuses on local community sharing, not donations to far locations.

b.How will it be able to solve the problem?

- Converts surplus into shared value.
- Reduces waste at the source.
- Builds a responsible community sharing culture.
- Enables real-time connection between people who have surplus and those in need.
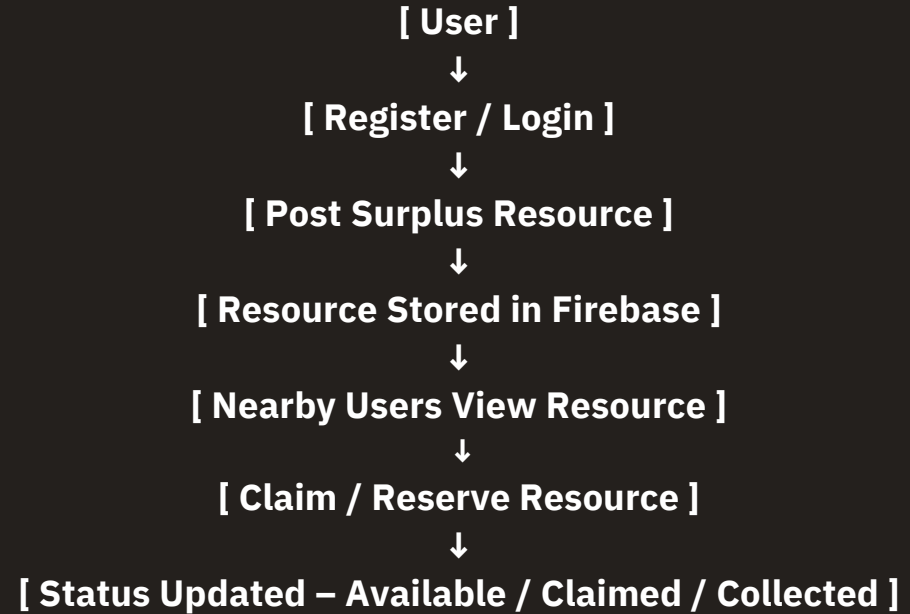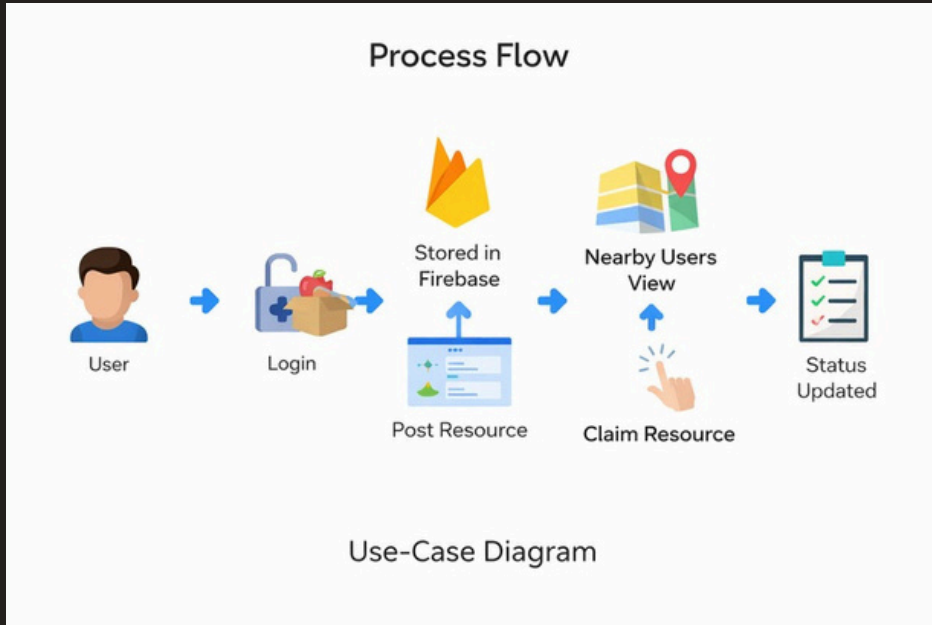- Promotes local redistribution, reducing dependency on large-scale donation systems

List of features offered by the solution

- **User Registration & Login:** Allows users to securely create an account and access the platform.
- **Post a Resource:** Users can upload details of surplus items such as food, books, or clothes.
- **View Nearby Resources:** Displays available resources shared by people in the local community.
- **Claim / Reserve Resource**: Enables users to request or reserve a resource they need.
- **Location-based Matching:** Connects users based on proximity using map integration.
- **Status Tracking – Available / Claimed / Collected:** Shows the current state of each shared resource to avoid confusion.
- **Search & Filter:** Helps users quickly find specific resources by category or location.
- **Notification Alerts:** Informs users when their resource is claimed or a nearby item is available.
- **User Rating & Feedback (Future Scope):** Builds trust by allowing users to rate sharing experiences.
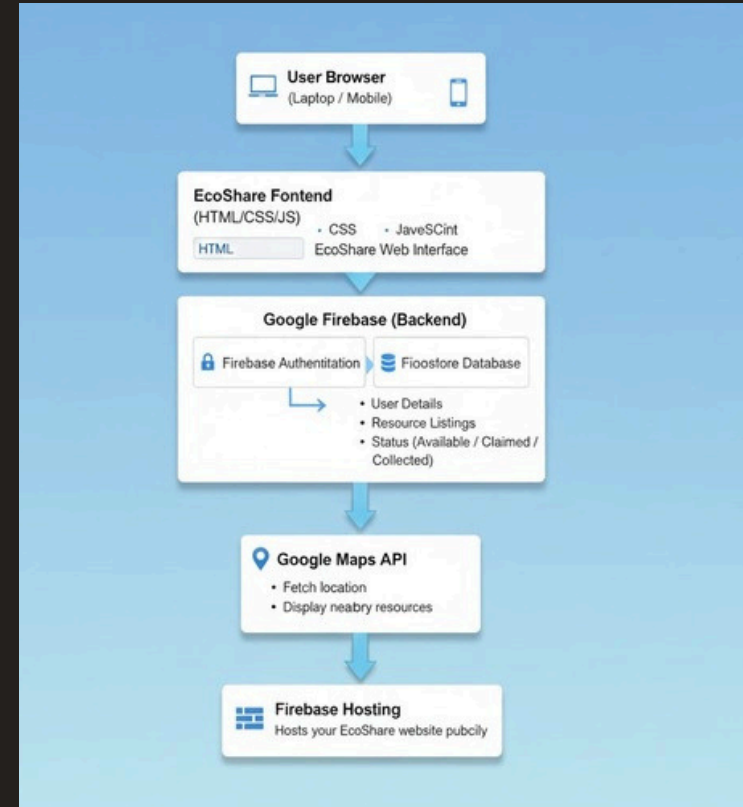
Google Technologies used in the solution

- **Firebase Authentication** – For secure user registration and login.

- **Firebase Firestore** – To store and manage shared resource details in real time.

- **Google Maps API** – To display and discover nearby shared resources using location data.

- **Firebase Hosting** – To deploy and host the EcoShare website.

Process flow diagram or Use-case diagram

[User]
↓
[Register / Login]
↓
[Post Surplus Resource]
↓
[Resource Stored in Firebase]
↓
[Nearby Users View Resource]
↓
[Claim / Reserve Resource]
↓
[Status Updated – Available / Claimed / Collected]

Architecture diagram of the proposed solution

User Browser
↓
EcoShare Frontend (HTML/CSS/JS)
↓
Firebase Authentication ←→ Firestore Database
↓
Google Maps API
↓
Firebase Hosting

Snapshots of the MVP
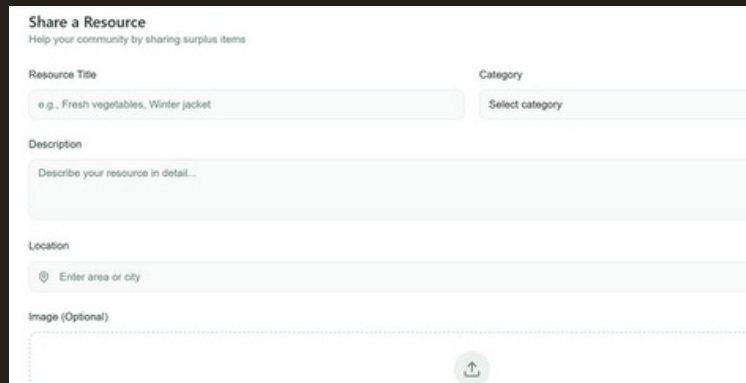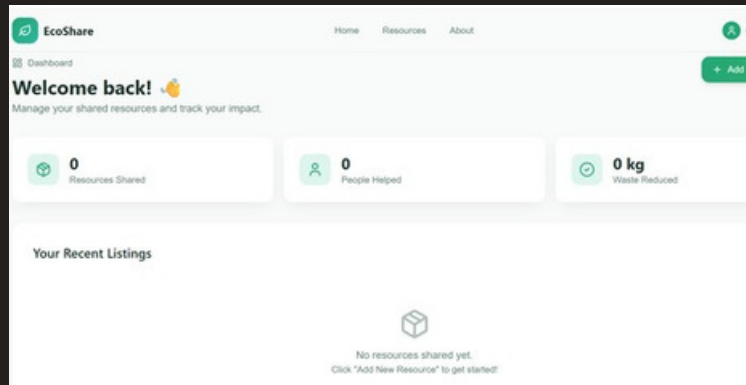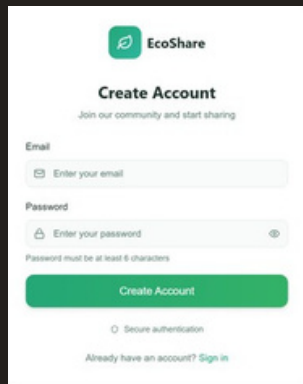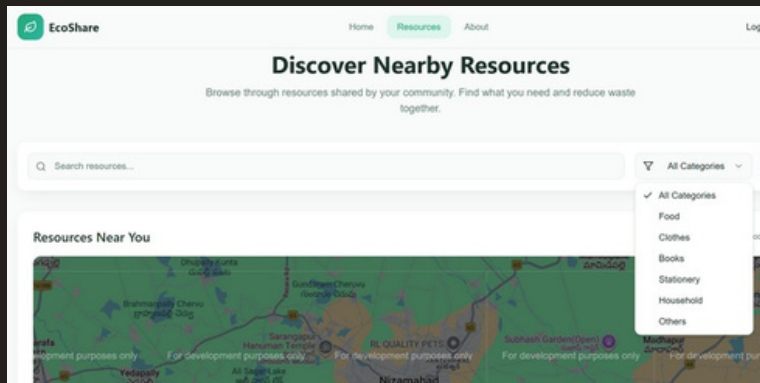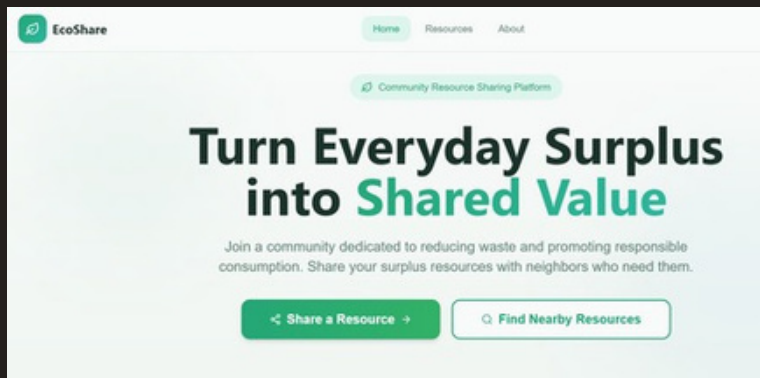
Additional Details/Future Development (if any)

- **Community Delivery Network:** Integrate volunteer or low-cost delivery services to transport shared resources to nearby recipients.
- **Smart Pickup Scheduling:** Allow users to select preferred pickup time slots for smooth coordination.
- **Eco-Impact Dashboard:** Display statistics on how much waste reduced and resources saved through the platform.
- **Reward & Badge System:** Encourage responsible sharing by awarding digital badges and eco-points to active users.