# High-Level Functional Requirements

1. **User Registration and Authentication**

The system shall allow users (restaurants, charities, and individuals) to register and log in securely using unique credentials.

The system shall verify user roles (e.g., donor, recipient, admin) to provide appropriate access and permissions.

1. **Food Listing and Donation Management**

The system shall enable food donors (restaurants, hotels, catering services) to create, update, and delete food donation listings, including details such as food type, quantity, expiry time, and pickup location.

The system shall automatically mark expired or claimed donations as unavailable.

1. **Food Request and Matching System**

The system shall allow recipients (charities or families) to browse available donations and request suitable items.

The system shall automatically match food donations with nearby recipients based on location, food type, and urgency.

1. **Notification and Communication Module**

The system shall send real-time notifications (via app alerts, email, or SMS) to notify recipients of new available donations and confirm successful matches.

The system shall allow in-app communication between donors and recipients to coordinate pickup details.

1. **Reporting and Analytics Dashboard**

The system shall generate reports and analytics for administrators showing key metrics such as total food saved, number of donations, participating organizations, and environmental impact.

The system shall allow exporting reports for further analysis.

### ****Location and Map Integration****

The system shall integrate with map services to display the exact pickup and delivery locations.

The system shall allow users to get directions and estimated travel time to facilitate donation handover.

### ****Food Quality and Safety Confirmation****

The system shall require donors to confirm that donated food meets basic safety and hygiene standards before posting.

The system shall allow recipients to rate and report the quality of received donations to ensure trust and reliability.

### ****8. Admin Management and Monitoring****

The system shall provide an administrative dashboard for managing users, monitoring activity, and resolving issues or disputes.

The system shall allow the admin to approve new organizations and remove inactive or violating accounts.