

Question- Prepare a standard Software Requirements Specification (SRS) document that specifies the System's Functional Requirements, Non-Functional Requirements, and Project Development Constraints.

Common Interface-

1. Login

Functional Requirements

- 1.1 The software shall allow users to give their username, password, email address, phone number, etc.
- 1.2 Given credentials will be checked if it is valid or not.
- 1.3 If the credentials are valid, then users will get to choose their designated role.
- 1.4 The credentials will be saved in the database.
- 1.5 Users will be redirected to the login page.

Priority Level: High

Precondition:

2. Sign up

Functional Requirements

- 2.1 The software shall allow users to login with their given username and password.

- 2.2 The login credentials (username and password) will be verified with database records.
- 2.3 If the login is successful, the home page of the user account will be displayed according to their role.
- 2.4 If the username and/or password has been inserted wrong, they will get notified as they have inserted wrong credentials.
- 2.5 If the user forgets their password, they can retrieve their credentials by using forget password option.
- 2.6 The software shall allow the user to give their email or phone number.
- 2.7 If the given email or phone number verified with database, they will get them credential via message or email.
- 2.8 If the email or phone number could not be found in database, they will get another chance for inputting their phone number or email.

Priority Level: High

Precondition: user have valid user id and password or have sign up for new user

3. Monthly Report

Functional Requirements

- 3.1 Users can see the top 3 donators of the month.
- 3.2 Users can see the total food donated to the needy people for the current month.

3.3 Users can see how many trees were planted this month.

Priority Level: Medium

Precondition:

4. Tree Tracking

Functional Requirements

- 4.1. Users can see the mapping representation of trees that were planted against the donation.
- 4.2. If user tap on the mapped tree mark, he/she can see the age of that tree by days.
- 4.3. Users can see the total number of trees planted in an area by tapping the area's name.
- 4.4. Users can report on trees if the tree was not taken care of correctly.
- 4.5. Users can suggest planting trees in their desired areas.

Priority Level: Medium

Precondition: To report user must have to login

Donor Interface-

5. Donate Food [Quantity inner feature]

Functional Requirements

- 5.1. The software shall allow donors to give the quantity of food.

5.2. Information about food quantity will be saved in the database.

Priority Level: Medium

Precondition: User have to login successfully

6. Account Setting

Functional Requirements

6.1. The software shall allow users to update their credentials

6.2. Users can turn on the anonymous mood to hide their profile.

6.3. Updated credentials will be saved in database.

Priority Level: Medium

Precondition: User have to login successfully

Organization Interface-

7. Check available food donation

Functional Requirements

7.1. System shall allow the NGO/Organizations to see the available food donation requests which will be activated by the donor accounts.

- 7.2. And, after selecting the donor request the Organization will see the other details of donor (Like- Address, Unit of donation, Available time slot for donation pick-up, etc.)

Priority Level: Medium

Precondition: User have to login successfully in Organization interface.

8. Available distributor

Functional Requirements

- 8.1. System shall allow the organizations to check the availability of distributor within their organizations.
- 8.2. Also provide their suitable area of distribution. So that the organization can assign them their task to pick up the food.
- 8.3. And the system must provide a unique serial number of that donation process after assigning the distributor. Which will help to keep track on the donor and the distributor combination.

Priority Level: Medium

Precondition: User must check the available food request first with the details of location, donation unit, etc.

9. Check the food quality

Functional Requirements

- 9.1. The system must allow the option to notify the distributor to distribute his/her collected food if it's edible.

- 9.2. To send notification about the edible food distribution to the specified distributor, who collected the food, the system should allow the option to take input of the collected food serial number and send message to the connected distributor with that serial number.
- 9.3. But if the food turns out to be inedible then the system shall provide an option of sending a recycle alert by that unique serial number. Which will be again recorded in the database of the system.
- 9.4. The system must allow the industrial interface to see these inedible food alerts, after organization updates the inedibility alert to the database.

Priority Level: Medium

Precondition: User must check the food quality first.

10. Check request for inedible food.

Functional Requirements

- 10.1. The system should allow to show the industrial request of inedible food collect after seeing the alert posts by organization.
- 10.2. And if the system accepts the request of the industry. The industry should get the acceptance message. And should also receive a specific inedible food pick up time slot.

Priority Level: Medium

Precondition: User must give the recycle food alert for the industry.

11. Tree mapping

Functional Requirements

- 11.1. Based on the database history of tree mapping the system shall give the next destination for tree plantation.
- 11.2. Also, an option should be there to keep the record after planting the tree unit by the distributor according to their unique serial number. This record in database plays a major role in monthly report generating sub-system and tree tracking sub-system.

Priority Level: Medium

Precondition: User must have some unit of trees to plant.

Industry Interface-

12. Available recycle food

Functional Requirements

- 12.1. The software will show the industry information about available food quantity.
- 12.2. Industry shall be given the option to select their preferred quantity
- 12.3. The software shall send a request to the Organization from the industry

Priority Level: High

Precondition: User have to login successfully

13. Pending trees

Functional Requirements

13.1. The software shall allow industry to choose the Organization name from a list.

13.2 After industry selects an organization, the number of pending trees will be shown for that Organization.

13.3 After every collection of recycle food, software will update the number of pending trees.

13.4 When trees are delivered to Organization, the number of pending trees will be deducted by the software.

Priority Level: High

Precondition: NGOs must update tree information.