

Software Requirements Specification (SRS)

Application Name

QA Training App

Document Purpose

This document defines the **functional requirements** of the QA Training App. The application is already implemented. Students must use this document as the **primary reference** to understand system behavior and create: - UI test cases - Functional test cases - Negative and validation test cases

Note: API-level details are intentionally excluded from this document. Students must refer to **Swagger documentation** to understand APIs.

1. System Overview

The QA Training App is a web-based application used for managing: - User authentication - Categories and sub-categories - Plants (inventory items) - Sales transactions

The system supports **role-based access control** with two roles: - **Admin** - **User**

2. User Roles & Access Control

Feature	Admin	User
Login	Yes	Yes
View Dashboard	Yes	Yes
View Categories	Yes	Yes
Add / Edit / Delete Category	Yes	No
View Plants	Yes	Yes
Add / Edit / Delete Plant	Yes	No
View Sales	Yes	Yes
Create Sale	Yes	No
Delete Sale	Yes	No

3. Authentication Module

3.1 Login Page

URL: /ui/login

Purpose: Allow users to authenticate using username and password.

Functional Requirements

- Username and Password fields are mandatory.
- Validation messages are displayed **below respective fields** in red color.
- Invalid login displays a global error message: **“Invalid username or password.”**
- Successful login redirects the user to the **Dashboard page**.
- Logout displays a success message.

Validation Rules

Field	Rule	Message
Username	Required	Username is required
Password	Required	Password is required

4. Dashboard

Access: Admin, User

Purpose: Display the main landing page after successful login.

Functional Requirements

- Dashboard loads immediately after login.
 - Navigation menu highlights the active page.
 - Category, Plants and Sales summary information will be displayed.
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5. Category Management Module

5.1 Category List Page

URL: /ui/categories

Access: Admin, User

Functional Requirements

- Display list of categories with pagination.
- Support searching by category name.
- Support filtering by parent category.
- Support sorting by:
 - ID
 - Name
 - Parent category
- If no records exist, display: **“No category found”**

Admin-Specific Features

- “Add Category” button is visible only to Admin.
- Edit and Delete actions are disabled or hidden for non-admin users.

5.2 Add / Edit Category Page

URLs: - Add: /ui/categories/add - Edit: /ui/categories/edit/{id}

Access: Admin only

Functional Requirements

- Category Name is mandatory.
- Parent Category selection is optional.
- Empty parent selection creates a **main category**.
- Validation errors are displayed below the field.
- Cancel button navigates back to category list.

Validation Rules

Field	Rule	Message
Category Name	Required	Category name is required
Category Name	Length 3–10	Category name must be between 3 and 10 characters

6. Plant Management Module

6.1 Plant List Page

URL: /ui/plants

Access: Admin, User

Functional Requirements

- Display paginated list of plants.
- Search plants by name.
- Filter plants by category.
- Sorting supported on:
 - Name
 - Price
 - Quantity
- Display “Low” badge when quantity is below 5.
- If no plants exist, display:
“No plants found”

Admin-Specific Features

- “Add Plant” button visible only to Admin.
 - Edit and Delete actions available only to Admin.
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6.2 Add / Edit Plant Page

URLs: - Add: /ui/plants/add - Edit: /ui/plants/edit/{id}

Access: Admin only

Functional Requirements

- Plant Name, Category, Price, and Quantity are mandatory.
- Category must be a sub-category.
- Validation errors appear below respective fields.
- Cancel button returns to plant list.

Validation Rules

Field	Rule	Message
Name	Required	Plant name is required
Name	Length 3–25	Plant name must be between 3 and 25 characters
Price	Required	Price is required
Price	> 0	Price must be greater than 0
Quantity	Required	Quantity is required
Quantity	≥ 0	Quantity cannot be negative
Category	Required	Category is required

7. Sales Management Module

7.1 Sales List Page

URL: /ui/sales

Access: Admin, User

Functional Requirements

- Display paginated list of sales records.
- Sorting supported on:
 - Plant name
 - Quantity
 - Total price
 - Sold date
- Default sorting by sold date (descending).
- If no sales exist, display:
“No sales found”

Admin-Specific Features

- “Sell Plant” button visible only to Admin.
 - Delete action available only to Admin.
 - Delete requires confirmation prompt.
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7.2 Sell Plant Page

URL: /ui/sales/new

Access: Admin only

Functional Requirements

- Plant dropdown lists available plants with current stock.
- Quantity must be greater than zero.
- On successful sale:
 - Stock is reduced
 - User is redirected to sales list
- On error:
 - Error message displayed on the same page
- Cancel button navigates back to sales list.

Validation Rules

Field	Rule	Message
Plant	Required	Plant is required
Quantity	≥ 1	Quantity must be greater than 0

8. Error Handling & Messages

- Validation errors are shown near respective input fields.
 - API errors are displayed as alert messages.
 - Unauthorized access:
 - Redirects to login page if not logged in
 - Redirects to 403 page if role is insufficient
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9. Assignment Usage Note (For Students)

This document must be used to: - Understand expected system behavior - Identify positive and negative scenarios - Design UI and functional test cases

API requests, responses, and edge cases must be derived from **Swagger documentation** provided with the application.

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