Scenario: Inventory Tagging and Shipping Mechanism

We are a big pharmaceutical company which makes medicines on assembly line. We want a very

fast system which will be deployed at different entry points of different warehouses for recording

the input of the quantity of the finished goods. We want the system to track the delivery of goods

from particular entry point. At the time of delivery of goods, the user should call an open service

to get the date + time + temperature of location and create a unique tag to mark the delivery/order.

The system should not allow the creation of tag if the service is not available. But, at the same

time we would not want the users to get blocked. So we would need a mechanism to let users

continue with other orders and the pending orders will get tagged once the service is available.

The system might be used at multiple entry points within a warehouse, so the system must be

restrictive enough to not allow users to book orders with same goods. Good performance of the

system will be a much-desired feature.

Use Case 1

System will be deployed at different entry points of different warehouses for recording the input

of the quantity of the finished goods

Authenticated user (Warehouse Attendant) should be able to enter the details of Goods which are

entering the warehouse**Functionality Flow**

1. **Login Page**

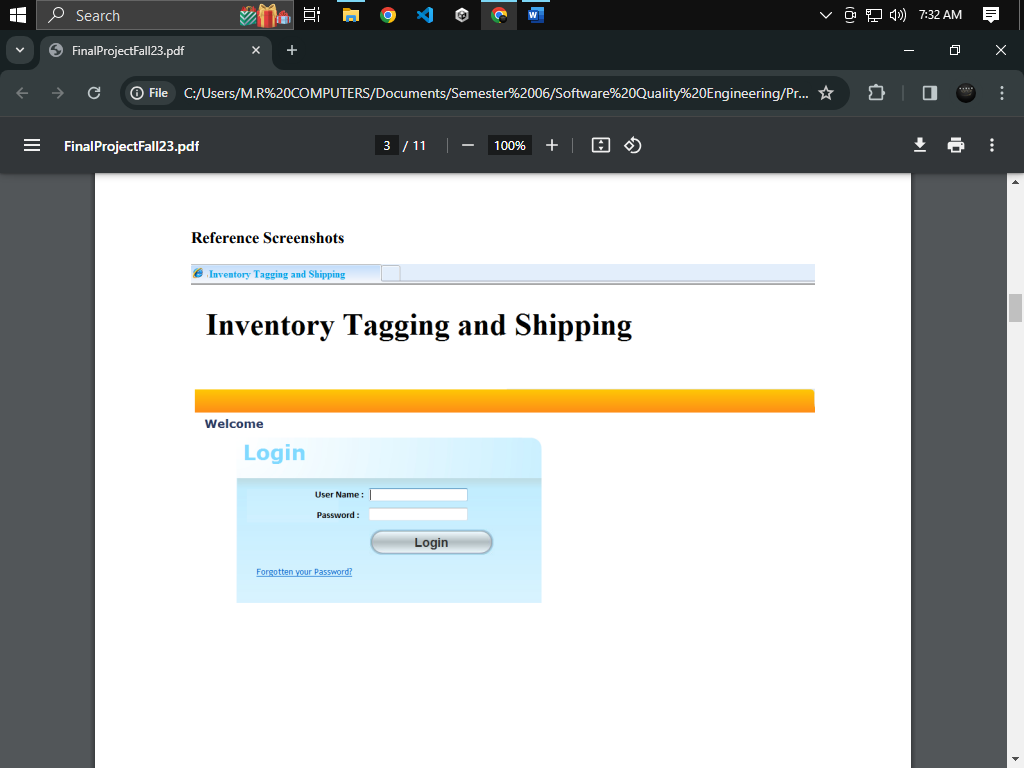
* Start at Login Page
* Enter User Name and Password
* User Name
* 255 char text field which needs to be filled by User
* DB-type: Alphanumeric (10 chars)
* Case Insensitive
* Mandatory Field
* Password
* 255 char text field which needs to be filled by User
* DB-type: Alphanumeric (10 chars)
* Case Insensitive
* Entry in Field should be shown as ‘\*’
* Mandatory Field
* Authenticate User
* Match User Name and Password with DB values
* Authenticate Rights = ‘Warehouse Attendant, or ‘Manager’ or ‘Administrator’
* If User Name or Password is Incorrect, Provide relevant Error Message to User
* If User Name and Password are correct but Rights are not present, show Message to user and
* Redirect to Home Page
* If User is authenticated (User Name, Password and Rights) , redirect to ‘Warehouse
* Management’ page

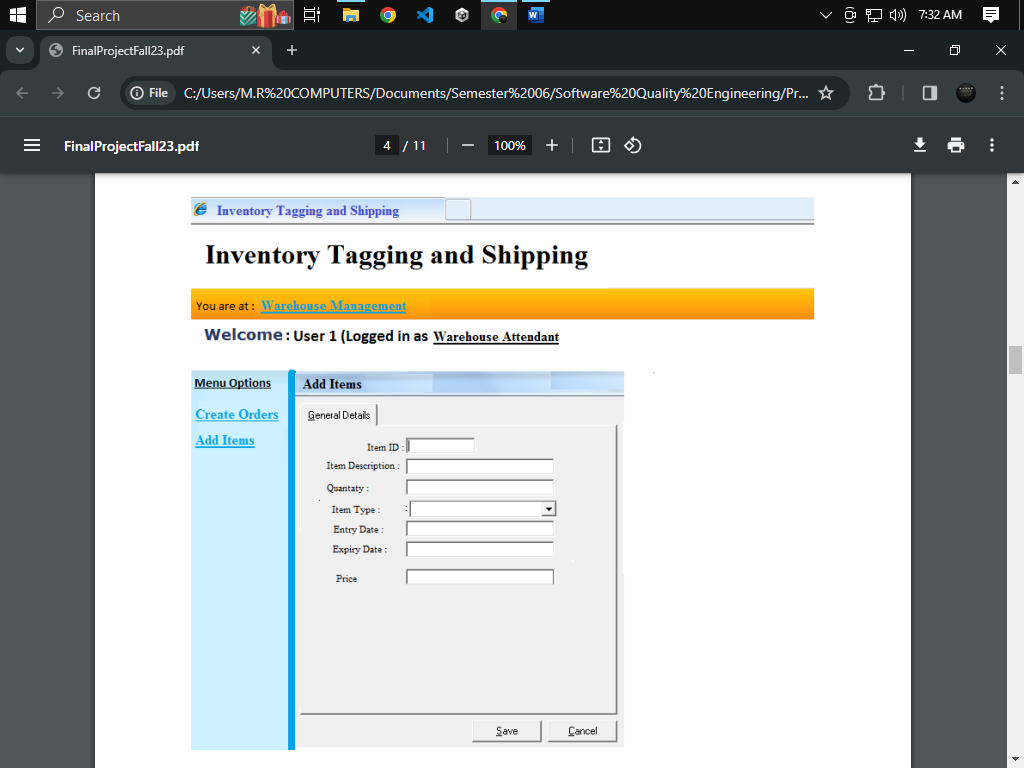
1. **Warehouse Management Page**

* Select ‘Add Items’ from menu option (which will open Add Item form).
* Fill in the following details in the Add Item form
* Item ID:
* 255 char text field which needs to be filled by User
* Must be Unique
* DB-type: Alphanumeric (10 chars)
* Mandatory Field
* Item Description:
* 255 char text field which needs to be filled by User
* DB-type: Alphanumeric (255 chars)
* Mandatory Field
* Item Type:
* User Selects Field value from Dropdown – i.e. Medicine, Raw Material,
* Others)
* Mandatory Field
* Entry Date:
* 255 char text field which needs to be filled by User
* DB-type: Date
* Mandatory Field
* Expiry Date:
* 255 char text field which needs to be filled by User
* DB-type: Date
* Must be greater than ‘Entry Date’
* Price:
* 255 char text field which needs to be filled by User
* DB-type: Integer
* Quantity:
* 255 char text field which needs to be filled by User
* DB-type: Integer
* Mandatory Field
* If save is clicked
* If all values are correct, enter values in DB and notify user about success
* Close Add Item Form and Redirect user Warehouse Management page
* If values are incorrect, provide Error message(s) below the field(s) with incorrect

value(s)

* If Cancel is clicked
* Close Add Item Form and Redirect user Warehouse Management page





**Part A**

**1. Peer Review the Scenario and raise QA concerns (points which needs clarification from**

**QA’s perspective)**

**PEER REVIEWS:**

1. **Peer review during document review**

* Username must be at least 6 characters not 10 characters
* Password must be case sensitive and at least 8 characters
* Password must be with some validations (capital letter, small letter, number, special character, not a space)
* Add features of button for login
* Add the forgot button features
* There are many fields that can be added in the “Add item” form
* We can add item name, unit of measure, supplier information, comment (additional information)

1. **Peer review during design review**

**Login Page**

* + - The login page should not contain welcome note before not logged In
    - Yellow bar is unnecessary
    - Login box should be in center
    - Size of login button is awkward
    - login button is rounded with the appearing of border color
    - login heading is incomplete it should be like “Login to Warehouse system”
    - forgot link is not attractive because of underlined, it should be like a button

**Warehouse Page**

* yellow color is not attractive
* it is unnecessary to write “you are at:”
* “Warehouse Management” should not underline
* welcome note should not contain “:” and “logged in as”
* font inconsistency in the entire page
* form width is not 100%
* there is no padding in the sidebar headings
* dark blue line is not attractive between the sidebar and form
* fields inconsistency
* save and cancel buttons are not at the right position, first cancel than save

**Part B**

**2. Design Test Cases for the above Use Cases (Functionality Flows)**

**a. Positive Functional Test Cases**

**b. Negative Functional Test Cases**

**c. At least 2 Security Test Cases**

**system name: Invetororail System**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TC ID | Scenario | Pre-Requisites | Test Data | Test Steps | Expected Result | Actual Result | Status | Test Case Type |
| IS-01 | Successful Login | User account exists with the correct username, password, and rights | [valid name]  [valid password] | Navigate to login page  Enter username and password  Click the login button | User is redirected to the 'Warehouse Management' page. |  |  | Positive Functional |
| IS-02 | Incorrect Login Credentials | User account exists but with incorrect username or password | [invalid name]  [invalid password] | Navigate to login page  Enter username and password  Click the login button | System displays an error message indicating incorrect credentials. |  |  | Negative Functional |
| IS-03 | Access 'Add Items' without Rights | User has logged in but does not have 'Add Items' rights | [restricted\_user]  [valid] | Successful login with restricted user  And navigate to add item page | System displays an error message and denies access to 'Add Items'. |  |  | Security |
| IS-04 | Add Item with Valid Data | User has the necessary rights and is on the 'Warehouse Management' page | Item ID: unique\_id, Description:  [valid], Type: Medicine, Entry Date: [valid], Expiry Date: [valid], Price: 100, Quantity: 10 | 1. Click on 'Add Items'. 2. Fill in all the required fields with valid data.  3. Click on 'Save'. | Item is added to the database, and the user is redirected to the 'Warehouse Management' page with a success message. |  |  | Positive Functional |
| IS-05 | Add Item with Invalid Expiry Date | User has the necessary rights and is on the 'Warehouse Management' page | Item ID: unique\_id, Description:  [valid], Type: Medicine, Entry Date: [valid], Expiry Date: [invalid], Price: 100, Quantity: 10 | 1. Click on 'Add Items'. 2. Fill in all the required fields with invalid expiry date.  3. Click on 'Save'. | System displays an error message for the invalid expiry date, and the item is not added to the database. |  |  | Negative Functional |
| IS-06 | Attempt to Save Form with Blank Mandatory Field | User has the necessary rights and is on the 'Warehouse Management' page | Item ID: unique\_id, Description:  [valid], Type: Medicine, Entry Date: [valid], Expiry Date: [valid], Price: 100, Quantity: blank | 1. Click on 'Add Items'. 2. Leave a mandatory field blank.  3. Click on 'Save'. | System displays an error message for the blank field, and the item is not added to the database. |  |  | Negative Functional |
| IS-07 | Attempt to Save Form with Existing Item ID | User has the necessary rights and is on the 'Warehouse Management' page | Existing item with ID: existing\_id, Description: existing\_desc, Type: Raw Material, Entry Date: existing\_date, Expiry Date: existing\_date, Price: 50, Quantity: 20 | 1. Click on 'Add Items'. 2. Enter an item ID that already exists. 3. Click on 'Save'. | System displays an error message for the duplicate item ID, and the item is not added to the database. |  |  | Negative Functional |
| IS-08 | Attempt to Save Form with Invalid Characters in Price | User has the necessary rights and is on the 'Warehouse Management' page | Item ID: unique\_id, Description: [valid], Type: Medicine, Entry Date: [valid], Expiry Date: [valid], Price: [invalid], Quantity: 10 | 1. Click on 'Add Items'. 2. Enter invalid characters in the price field. 3. Click on 'Save'. | System displays an error message for the invalid price characters, and the item is not added to the database. |  |  | Negative Functional |
| IS-09 | An unauthorized user directly accesses the page of management without logging | The user has not logged in | N/A | 1. Open a new browser window in incognito mode  2. Enter the URL of the 'Warehouse Management' page directly without logging in.  3. Press Enter to navigate to the page. | The system should redirect the user to the login page and deny access to the 'Warehouse Management' page, |  |  | Security |

**Part C**

**3. You have received the first build of the application. Following is the result of actual**

**application behavior when you performed the following actions:**

**a. Logged in using valid User credentials (of Warehouse Manager)**

**b. On “Warehouse Management” page, clicked on “Add Item”**

**c. On Add Item form, click SAVE without entering any value**

**d. Same steps are done on “Create Orders”**

**-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- bug reporting -----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**

**Part D**

**4. Provide 3 suggestions regarding “Usability” aspect for each page (i.e. suggest 3 things in**

**each page that should be implemented for good User Experience)**

* **usability for login page**
  + User can login with the embedded account like Google
  + Give the placeholder in the fields and show the validations below the fields and at real time when user is providing the credentials
  + Give the title of login like login as manager, administrator or attendance
  + Selection option before logging (manager or administrator).
  + Remember option should be appear to easily logging the page.
* **usability for warehouse page**
  + Provide Real-time Validation and Error Feedback
  + Autocomplete suggestions
  + Pop up the confirmation screen before send data to database with edit functionality.
  + Drop down options to select the product or other option to easily enter data

Use Case 2

At the time of delivery of goods, the user should call an open service to get the

date+time+temperature of location and create a unique tag to mark the delivery/order.

The system will be used at multiple entry points within a warehouse, so the system not allow

users to book orders with same goods

**Functionality Flow**

* 1. **Login Page**
* Start at Login Page
* Enter User Name and Password
  + User name
    - 255 char text field which needs to be filled by User
    - DB-type: Alphanumeric (10 chars)
    - Case Insensitive
    - Mandatory Field
  + Password
    - 255 char text field which needs to be filled by User
    - DB-type: Alphanumeric (10 chars)
    - Case Insensitive
    - Entry in Field should be shown as ‘\*’
    - Mandatory Field
  + Authenticate User
    - Match User Name and Password with DB values
    - Authenticate Rights = ‘Warehouse Manager’ or ‘Administrator’
  + If User Name or Password is Incorrect, Provide relevant Error Message to User
  + If User Name and Password are correct but Rights are not present, show Message to user and
  + Redirect to Home Page
  + If User is authenticated (User Name, Password and Rights) , redirect to ‘Warehouse
  + Management’ page
  1. **Warehouse Management Page**