

Traceability Matrix for Harry's Diner

Functional Requirement	User Story ID	Use Case ID	Description	Test Case ID
Browse Menu	US01	UC01	Users can browse the menu or search by category.	TC01
Place an Order	US02 US07	UC02	Users can place an online order and apply discount codes.	TC02 TC03
Manage Inventory	US03	UC03	Managers can keep track of inventory and stock levels.	TC04
Receive Order Notifications	US04	UC04	Restaurant staff members can receive notifications for new orders.	TC05
Track Orders	US05 US08	UC05	Customers can view the current order as well as their order history	TC06
Customize Order	US06 US09	UC06	Customers can customize the dishes in their orders and add special instructions.	TC07

1. User Story ID US01: Browse Menu

As a customer, I want to browse the restaurant's menu so that I can choose what to order.

Gherkin Scenario:

Feature: Browse Menu

Scenario: Display all menu items

Given the customer is on the homepage

When the customer navigates to the menu page

Then the customer should see a list of all available dishes with their prices

Scenario: Filter menu by category

Given the customer is on the menu page

When the customer filters the menu by category (e.g., "Drinks", "Main Course", "Desserts")

Then the customer should only see items in the selected category

2. User Story ID US02: Place an Order

As a customer, I want to place an order online so that I can enjoy my meal at home.

Gherkin Scenario:

Feature: Place an Order

Scenario: Add items to cart

Given the customer is viewing the menu

When the customer clicks the "Add to Cart" button on an item

Then the item should be added to the customer's cart with the correct quantity and price

Scenario: Checkout order

Given the customer has items in their cart

When the customer clicks the "Checkout" button

Then the system should prompt the customer for delivery information and payment details

3. User Story ID US03: Manage Inventory

As a restaurant manager, I want to manage the inventory so that I can keep track of stock levels and avoid running out of ingredients.

Gherkin Scenario:

Feature: Manage Inventory

Scenario: View current inventory

Given the manager is on the inventory management page
When the manager clicks on "View Inventory"
Then the system should display a list of all ingredients and their current stock levels

Scenario: Update stock levels

Given the manager is viewing an ingredient's details
When the manager adjusts the stock quantity and saves the changes
Then the system should update the stock level in the inventory list

4. User Story ID US04: Receive Order Notifications

As a restaurant staff member, I want to receive notifications for new orders so that I can prepare them on time.

Gherkin Scenario:

Feature: Receive Order Notifications

Scenario: New order notification

Given the staff member is logged into the restaurant management dashboard
When a customer places a new order
Then the system should send a notification to the staff member with order details

Scenario: Order status update

Given the staff member is viewing a pending order
When the staff member marks the order as "In Progress"
Then the customer should receive an update that their order is being prepared

5. User Story ID US05: View Order History

As a customer, I want to view my order history so that I can easily reorder my favorite dishes.

Gherkin Scenario:

Feature: View Order History

Scenario: Display past orders

Given the customer is logged into their account
When the customer navigates to the order history page
Then the system should display a list of all previous orders with details and dates

Scenario: Reorder from history

Given the customer is viewing a past order
When the customer clicks the "Reorder" button
Then the system should add the items from the previous order to the cart

6. User Story ID US06: Customize Dishes

As a customer, I want to make modifications to my order to add or remove ingredients.

Gherkin Scenario:

Feature: Customize Dishes

Scenario: modify current item

Given the customer is browsing items,

When the customer clicks modify item,

Then the customer should be redirected to the details of the item.

Scenario: add an ingredient to a item

Given the customer has clicked modify item,

And they are properly redirected to the item details

When the customer clicks the "+" button next to the ingredient,

Then the quantity of the ingredient should be increased by 1.

Scenario: remove an ingredient to an item

Given the customer has clicked modify item,

And they are properly redirected to the item details

When the customer clicks the "-" button next to the ingredient,

Then the quantity of the ingredient should be decreased by 1.

7. User Story ID US07: Apply Discount Codes

As a customer, I want to apply codes at the end of my order to receive a discount on my order.

Gherkin Scenario:

Feature: Apply Discount Codes

Scenario: Customer enters a code

Given the customer is at checkout,

When the customer enters a code,

Then the code is run through a dictionary of codes to determine their validity.

Scenario: Customer enters a valid code.

Given the customer is at the checkout page

And they enter a valid code

When the customer clicks "Apply Code",

Then the discount listed for the code is applied to their order.

Scenario: Customer enters a invalid code.

Given the customer is at the checkout page
And they enter a invalid code
When the customer clicks "Apply Code",
Then a message appears below the code that reads "Discount code not found".

8. User Story ID US08: Track Order Status

As a customer, I want to track the status of my order to see when it will be finished.

Gherkin Scenario:

Feature: Track order status

Scenario: Customer places an order

Given the customer is at checkout,
When the customer places the order,
Then the customer is redirected to the completed order screen,
And the order status is set to "Order placed".

Scenario: Restaurant receives order

Given the customer has placed an order,
And the customer is on the completed order screen,
When the restaurant received the notification,
And they click "Accept"
Then the status of the order is changed to "Preparing".

Scenario: Kitchen Finishes order

Given the customer has placed an order,
And the customer is on the completed order screen,
When the restaurant finishes the order,
And they click "done"
Then the status of the order is changed to "Completed".
And the order is saved into the customer's order history.

9. User Story ID US09: Handle Special Instructions

As a customer, I want to write special instructions at the top of my order for allergies and preferences.

Gherkin Scenario:

Feature: Handle Special Instructions

Scenario: Customer is viewing their cart.

Given the customer is in their cart
When the customer clicks "add instructions" for a item or the order,

Then a text box opens for the customer to enter their message.

Scenario: Customer enters a message.

Given the customer is viewing their cart,

And the customer has entered a message for special instructions

When the customer clicks "Apply",

Then the instructions are pasted under the item or order.

Use Cases for Harry's Diner

1. Use Case ID UC01: Browse Menu

Actor(s): Customer, System

Description: The customer browses the available menu items to view dish options, descriptions and prices

Preconditions: The customer is logged in and using the app, and the menu data is available

Basic Flow: 1) The customer opens the dining app and navigates to the "Menu" section

2) The system retrieves menu data from the database

3) The customer scrolls through and views the menu items

Alternate Flows: (1) The customer filters menu items by category

(2) The customer searches for a specific menu item on the search bar

Postconditions: The customer has browsed the menu and can proceed with ordering

Diagram

2. Use Case ID UC02: Placing an order

Actor(s): Customer, System

Description: The customer places items into their orders, apply discount codes, and complete the order

Preconditions: Customer is logged in and using the app

Basic Flow: 1) Customer adds items to cart. 2.) Customer places the order.

Alternate Flows: 1) Customer adds items to cart. 2.) Customer enters a discount code. 3) Customer places the order.

Postconditions: Customer has placed an order.

Diagram

3. Use Case ID UC03: Manage Inventory

Actor(s): Manager, System

Description: The manager can view and update the stock and inventory value.

Preconditions: A manager is logged onto the app.

Basic Flow: 1) A manager views inventory

Alternate Flows: 1) A manager views inventory. 2) A manager edits the stock of an item.

1) A manager views inventory. 2_ A manager edits the unit cost of the item.

Postconditions: Potentially updated stock values in the system.

[Diagram](#)

4. Use Case ID UC04: Receive Order Notifications

Actor(s): Staff, System

Description: The system sends Order notifications to the staff when a customer places an order.

Preconditions: Customer has placed an order. Staff member has logged in.

Basic Flow: 1) System gets customer order. 2) System displays a notification.

Alternate Flows: None

Postconditions: Notification has been sent to restaurant.

[Diagram](#)

5. Use Case ID UC05: Track Orders

Actor(s): Customer, Staff, System

Description: Customers can see the current order status as well as the order summaries of past orders.

Preconditions: Customer is logged in and viewing orders.

Basic Flow: 1) Staff sends status updates. 2) System sends updates to Customer. 3) Customer views order status

Alternate Flows: 1) Customer views order history. 2) Customer reorders a previous order.

Postconditions: Notifications have been sent to the customer or the customer has placed an order.

[Diagram](#)

6. Use Case ID UC06: Customize Order

Actor(s): Customer, System

Description: Customers can edit the ingredients of a dish as well as add special instructions.

Preconditions: Customer is viewing an order.

Basic Flow: 1) Customer clicks a dish on the order. 2) The dish details are shown 3) A customer adds or removes ingredients. 4) order is updated.

Alternate Flows: 1) Customer clicks add instructions. 2) A text box is shown. 3) Customer enters text. 4) Instructions are added to order

Postconditions: Order has been updated.

Diagram

7. Use Case ID UC07: Login

Actor(s): User (Customer, Staff), System

Description: Users can log in to their account to be able to access the system.

Preconditions: User has already registered an account and user is on the login page.

Basic Flow: 1) User types in their username and password. 2) The user presses login. 3) User gets redirected to their dashboard.

Alternate Flows: 1) User types in their username and password. 2) The user presses login. 3) Credentials are invalid, the system tells the user to try again.

Postconditions: Client-side system state is updated with the user logged in to the environment.

Diagram

Test cases for Harry's Diner

1. TC01: Browsing the menu

- **Test Objective:** Verifying that the user can navigate the menu
- **Test steps:**
 1. Navigate to the 'menu' page
 2. Applies 'filter by category' to the menu
- **Expected results:** the system displays the menu according to the filter used
- **Test Status:** pass/fail

2. TC02: Adding item to cart

- **Test Objective:** Verifying that the user is able to place an order
- **Test Steps:**
 1. Clicking 'add to cart' on an item from the menu
 2. Navigate to the cart
- **Expected results:** The appropriate item has been added to the cart
- **Test Status:** pass/fail

3. TC03: Applying discount code

- **Test Objective:** Verifying users can use valid discount codes

- **Test steps:**
 1. Navigate to the cart
 2. Applying a valid discount code
 3. Selecting 'checkout'
- **Expected results:** The discount code is applied appropriately to order
- **Test Status:** pass/fail
- 4. TC04: Manage Inventory**
 - **Test Objective:** Verifying managers can access stock item counts
 - **Test steps:**
 1. Navigate to the manage inventory page
 2. Selecting 'view inventory count'
 3. Selecting 'adjust item count' on items
 - **Expected results:** Inventory is accurately shown/edited
 - **Test Status:** pass/fail
- 5. TC05: Receive orders**
 - **Test Objective:** Verifying restaurant staff is able to receive orders
 - **Test steps:**
 1. Navigate to the 'Restaurant management dashboard'
 2. Confirm a customer successfully placed an order
 3. Selecting 'update order'
 - **Expected results:**
 1. Order notification is successfully received
 2. Order status successfully updates
 - **Test Status:** pass/fail
- 6. TC06: Tracking Orders**
 - **Test Objective:** Verifying order updates are
 - **Test steps:**
 1. Navigate to 'order history'
 2. Selecting 'view ongoing orders'
 - **Expected results:** System displays past orders and progress update for ongoing orders
 - **Test Status:** pass/fail
- 7. TC07: Customizing orders**
 - **Test Objective:** Verifying customers can add notes to orders & items
 - **Test steps:**
 1. Navigate to shopping cart
 2. Selecting 'modify item' and add changes to ingredients
 3. Selecting 'add notes'
 - **Expected results:** Orders are received with accurate modifications/notes
 - **Test Status:** pass/fail