# Software Test Design (STD) - SmartCook

This document provides detailed test cases for verifying the functionality of the SmartCook.

## TC-SC-001

|  |  |
| --- | --- |
| Description | User registration with valid credentials |
| Preconditions | Server running, database initialized |
| Test Steps | 1. Open registration page 2. Enter valid username, email, and password 3. Submit the form |
| Expected Result | User account created and redirected to login page |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-002

|  |  |
| --- | --- |
| Description | User login with incorrect password |
| Preconditions | User exists in database |
| Test Steps | 1. Open login page 2. Enter correct username and incorrect password 3. Submit the form |
| Expected Result | Error message 'Invalid credentials' displayed |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-003

|  |  |
| --- | --- |
| Description | Add ingredient manually to inventory |
| Preconditions | User logged in |
| Test Steps | 1. Navigate to Inventory page 2. Click 'Add Ingredient' 3. Enter ingredient details 4. Click 'Save' |
| Expected Result | Ingredient appears in inventory list |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-004

|  |  |
| --- | --- |
| Description | Scan barcode to add product to inventory |
| Preconditions | User logged in, camera permission granted |
| Test Steps | 1. Navigate to Scan Product page 2. Use camera to scan barcode 3. Confirm product details 4. Click 'Add to Inventory' |
| Expected Result | Product is added to user's inventory |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-005

|  |  |
| --- | --- |
| Description | Generate personalized recipes based on current inventory |
| Preconditions | User logged in, inventory contains at least 3 items |
| Test Steps | 1. Navigate to Dashboard or Recipes page 2. Click 'Generate Recipes' 3. Wait for results |
| Expected Result | List of relevant recipes is displayed |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-006

|  |  |
| --- | --- |
| Description | Rate a recipe |
| Preconditions | User logged in, at least one recipe viewed |
| Test Steps | 1. Open a recipe page 2. Select a star rating (1–5) 3. Click 'Submit Rating' |
| Expected Result | Rating is saved and average rating is updated |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-007

|  |  |
| --- | --- |
| Description | Update dietary preferences in user profile |
| Preconditions | User logged in |
| Test Steps | 1. Navigate to Profile page 2. Select dietary preferences (e.g., vegetarian, gluten-free) 3. Click 'Save Preferences' |
| Expected Result | Preferences are saved and used in future recommendations |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-008

|  |  |
| --- | --- |
| Description | Interact with Kitchen Assistant to get cooking suggestions |
| Preconditions | User logged in |
| Test Steps | 1. Navigate to Assistant page 2. Type a message like 'What can I cook today?' 3. Wait for AI response |
| Expected Result | AI suggests relevant recipes based on inventory and preferences |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-009

|  |  |
| --- | --- |
| Description | Save a recipe to favorites |
| Preconditions | User logged in, at least one recipe generated |
| Test Steps | 1. View a recipe 2. Click 'Save to Favorites' |
| Expected Result | Recipe is saved and appears in 'Saved Recipes' page |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-010

|  |  |
| --- | --- |
| Description | Remove an ingredient from inventory |
| Preconditions | User logged in, inventory contains at least one item |
| Test Steps | 1. Go to Inventory page 2. Click 'Remove' on an item 3. Confirm deletion |
| Expected Result | Ingredient is removed from inventory list |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-011

|  |  |
| --- | --- |
| Description | Logout from the system |
| Preconditions | User logged in |
| Test Steps | 1. Click on profile icon 2. Click 'Logout' |
| Expected Result | User is redirected to login page and session is terminated |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-012

|  |  |
| --- | --- |
| Description | Edit an existing ingredient in inventory |
| Preconditions | User logged in, inventory has at least one item |
| Test Steps | 1. Go to Inventory page 2. Click 'Edit' on an item 3. Change quantity or name 4. Click 'Save' |
| Expected Result | Changes are saved and reflected in inventory list |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-013

|  |  |
| --- | --- |
| Description | Receive notification for soon-to-expire product |
| Preconditions | User logged in, inventory contains item near expiration |
| Test Steps | 1. Login to account 2. Wait or simulate expiration threshold 3. Check notification panel |
| Expected Result | Notification appears with product and expiry details |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-014

|  |  |
| --- | --- |
| Description | Upload image to identify ingredient |
| Preconditions | User logged in |
| Test Steps | 1. Go to Scan Product page 2. Click 'Upload Image' 3. Select image with ingredient 4. Submit |
| Expected Result | System recognizes and suggests a matching product |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-015

|  |  |
| --- | --- |
| Description | Delete saved recipe from favorites |
| Preconditions | User logged in, at least one recipe saved |
| Test Steps | 1. Navigate to 'Saved Recipes' 2. Click 'Delete' on a recipe 3. Confirm deletion |
| Expected Result | Recipe is removed from favorites list |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-016

|  |  |
| --- | --- |
| Description | Update user profile information (e.g. name or email) |
| Preconditions | User logged in |
| Test Steps | 1. Go to Profile page 2. Update name or email 3. Click 'Save Changes' |
| Expected Result | Profile is updated and confirmation message shown |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-017

|  |  |
| --- | --- |
| Description | Display warning when ingredient quantity is too low |
| Preconditions | User logged in, ingredient exists with minimal quantity |
| Test Steps | 1. Go to Inventory page 2. Set ingredient quantity to very low (e.g., 1 unit) 3. Observe warning |
| Expected Result | System displays a low-quantity warning next to the ingredient |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-018

|  |  |
| --- | --- |
| Description | Get recipe suggestions based on selected ingredient |
| Preconditions | User logged in, inventory populated |
| Test Steps | 1. Click on an ingredient in inventory 2. Click 'Find Recipes' 3. Wait for suggestions |
| Expected Result | Recipes using the selected ingredient are displayed |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-019

|  |  |
| --- | --- |
| Description | Set expiration date when adding an ingredient |
| Preconditions | User logged in |
| Test Steps | 1. Go to Add Ingredient form 2. Enter ingredient details 3. Set expiration date 4. Click Save |
| Expected Result | Ingredient is added with expiration date visible in inventory |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-020

|  |  |
| --- | --- |
| Description | Filter inventory by ingredient category |
| Preconditions | User logged in, inventory includes multiple categories |
| Test Steps | 1. Go to Inventory page 2. Select a category filter  3. Apply filter |
| Expected Result | Only ingredients from selected category are displayed |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |

## TC-SC-021

|  |  |
| --- | --- |
| Description | Show recommend recipes on dashboard |
| Preconditions | User logged in, recipes available |
| Test Steps | 1. Login and go to Dashboard 2. View 'recommend Recipes' section |
| Expected Result | recipes based on user |
| Actual Result | Test passed successfully – functionality works as expected |
|  |  |