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# SHELF SMART

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## ShelfSmart

## Test Case

## Version 1.3

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## Revision History

Date	Version	Description	Author
09/4/24	1.0	Initial ideas, brainstorming requirements, and definitions.	Ansuman Sharma, Yadhunath Tharakeswaran, Shayaan Mohammed, Kundhana Pragnya.
12/4/24	1.1	Finalizing ideas, Declaring functions, Started with backend, initial codings.	Ansuman Sharma, Yadhunath Tharakeswaran, Shayaan Mohammed, Kundhana Pragnya.
14/4/24	1.2	Created the homepage of the website, working further in the backend, connecting to Restful API.	Ansuman Sharma, Yadhunath Tharakeswaran, Shayaan Mohammed, Kundhana Pragnya.
2/5/24	1.3	Testing the functionality of the website through some test cases, and making some final changes to the website before deployment.	Ansuman Sharma, Yadhunath Tharakeswaran, Shayaan Mohammed, Kundhana Pragnya.

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## Test Case

### 1. Purpose

Test cases are essential for ensuring the functionality, reliability, and user satisfaction of the Shelf-Smart website. They serve several crucial purposes in the software development lifecycle. Firstly, test cases verify that the website operates as intended, allowing users to input ingredients, save pantry items, and receive accurate recipe recommendations based on their inventory. Secondly, test cases identify and address any potential bugs or errors within the system, ensuring a seamless user experience free of glitches or malfunctions. Additionally, test cases validate the website's ability to handle various scenarios, such as different ingredient combinations, quantities, and user interactions, thus enhancing its robustness and adaptability.

### 2. Output specifications

Here is the interface of the backend for testing, and the test cases would be based on this:

Shelf-Smart Menu:

1. Add Ingredient
2. Display Inventory
3. Recommend Recipes
4. Exit

Enter your choice:

Test case Identifier	Test Item	Input Specification	Expected Output Specification	Actual Output Specification	Pass/Fail
001	Test to make sure that upon entering "1" in the menu, it should take us to the first step for adding Ingredients.	1	Enter ingredient name:	Enter ingredient name:	Pass
002	Test to valid that the code takes in all the required parameters for "Add Ingredient " option	Enter ingredient name: <b>Chicken Breast</b> Enter quantity: <b>1</b> Enter quantity type (lbs/tsp/count): <b>lbs</b> Enter expiry date (YYYY-MM-DD): <b>2024-05-05</b>	Ingredient added successfully!	Ingredient added successfully!	Pass

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		Enter category (1 = meat, 2 = grain, 3 = vegetable, 4 = spice): <b>1</b> Enter calories (optional, 0 for none): <b>120</b>			
003	Test to validate whether “Display Inventory” displays the ingredient that we added in the above test case along with its parameters upon entering “2”	2	- Chicken Breast (1 lbs) - Expires on 2024-05-05 - Calories: 120		
004	Test to validate that calorie is treated as an optional field and not as a required field.	Enter ingredient name: <b>Chicken Breast</b> Enter quantity: <b>1</b> Enter quantity type (lbs/tsp/count): <b>lbs</b> Enter expiry date (YYYY-MM-DD): <b>2024-05-05</b> Enter category (1 = meat, 2 = grain, 3 = vegetable, 4 = spice): <b>1</b> Enter calories (optional, 0 for none): <b>0</b>	Ingredient added successfully!	Ingredient added successfully!	Pass
005	Test to validate whether “Display Inventory” displays the ingredient that we added in the above test case along with its parameters except for the “calories” parameter.	2	- Chicken Breast (1 lbs) - Expires on 2024-05-05	- Chicken Breast (1 lbs) - Expires on 2024-05-05 - Calories: 120	Pass
006	Test to validate whether “Rice” is added as an ingredient or not.	Enter your choice: <b>1</b> Enter ingredient name: <b>Rice</b> Enter quantity: <b>2</b> Enter quantity type	Ingredient added successfully!	Ingredient added successfully!	Pass

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		(lbs/tsp/count): <b>lbs</b> Enter expiry date (YYYY-MM-DD): <b>2024-09-08</b> Enter category (1 = meat, 2 = grain, 3 = vegetable, 4 = spice): <b>2</b> Enter calories (optional, 0 for none): <b>10</b>			
007	Test case to validate whether the ingredient that we added above is displayed along with the previously added ingredient and its parameters (Chicken without calories mentioned).	2	- Chicken Breast (1 lbs) - Expires on 2024-05-05  - Rice (2 lbs) - Expires on 2024-09-08 - Calories: 10	- Chicken Breast (1 lbs) - Expires on 2024-05-05  - Rice (2 lbs) - Expires on 2024-09-08 - Calories: 10	Pass
008	Test case to validate whether the program produces a recipe based on the items that we added to the inventory so far.	3	Personalized Recommendations:  We get this because there are no recipes that are stored in our program that takes contains only these ingredients	Personalized Recommendations:	Pass
009	Test case to validate whether the program produces any recipes (from the pre-stored recipes) upon adding other ingredients that match to the recipe stored in the program. Let's check by adding "Carrot" and "Garlic" as ingredients.	Note: Carrot and Garlic is added to a new inventory.  3  (We should get 2 recipes as the program has 2 recipes that has)	Personalized Recommendations: - Vegetable Soup: A healthy and comforting vegetable soup. - Total calories: 41	Personalized Recommendations: - Vegetable Soup: A healthy and comforting vegetable soup. - Total calories: 41	Pass
010	Test case to validate that the program produces all the	Note: Chicken Breast, Rice, Carrot, and Garlic	Personalized Recommendations: - Vegetable Soup:	Personalized Recommendations:	Pass

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	recipes that contain the following ingredients: Chicken Breast, Rice, Carrot, Garlic. According to the program there should be 2 recipes produced.	is added to the inventory.	A healthy and comforting vegetable soup. - Total calories: 41  - Chicken and Rice: A delicious combination of chicken and rice with vegetables. - Total calories: 412	- Vegetable Soup: A healthy and comforting vegetable soup. - Total calories: 41  - Chicken and Rice: A delicious combination of chicken and rice with vegetables. - Total calories: 412	
011	Test case to validate that the recipes are produced only if all the ingredients (that are supposed to be available for that recipe) is entered by the user	Note: Only Chicken Breast, Rice, and Carrot are added to the new inventory.  3	Personalized Recommendations:	Personalized Recommendations:	Pass
012	Test case to validate that 2 recipes are produced upon having Chicken Breast, Rice, Garlic, Carrot, and Bacon. And the extra ingredient is not considered in the recipe.	Note: Only Chicken Breast, Rice, Bacon, and Carrot are added to the new inventory.  3	Personalized Recommendations: - Vegetable Soup: A healthy and comforting vegetable soup. - Total calories: 41  - Chicken and Rice: A delicious combination of chicken and rice with vegetables. - Total calories: 412	Personalized Recommendations: - Vegetable Soup: A healthy and comforting vegetable soup. - Total calories: 41  - Chicken and Rice: A delicious combination of chicken and rice with vegetables. - Total calories: 412	Pass
013	Test to valid that if a same item is being	Note: Add Rice once again but with	Inventory: - Bacon (1 lbs) -	Inventory: - Bacon (1 lbs)	Pass

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	added to the inventory it is just replaced with the newly entered ingredient (the same ingredient).	a quantity of 1 lbs and change in expiry date to 2024-08-26.  2	Expires on 2024-05-09 - Carrot (2 count) - Expires on 2024-05-06 - Chicken Breast (1 lbs) - Expires on 2024-05-05 - Garlic (2 count) - Expires on 2024-03-04 - Rice (1 lbs) - Expires on 2024-08-26	- Expires on 2024-05-09 - Carrot (2 count) - Expires on 2024-05-06 - Chicken Breast (1 lbs) - Expires on 2024-05-05 - Garlic (2 count) - Expires on 2024-03-04 - Rice (1 lbs) - Expires on 2024-08-26	
014	Test case to validate that the user can input irrelevant input into the inventory and would still be stored into the inventory. (An issue that we have to work on later but for the given code it works).	1  Enter ingredient name: <b>Chicken Breast</b> Enter quantity: <b>2</b> Enter quantity type (lbs/tsp/count): <b>lbs</b> Enter expiry date (YYYY-MM-DD): <b>34-05-08</b> Enter category (1 = meat, 2 = grain, 3 = vegetable, 4 = spice): <b>2</b> Enter calories (optional, 0 for none): <b>34</b>	Ingredient added successfully!	Ingredient added successfully!	Pass (For now but it is a fault that has to be fixed in the upcoming updates)
015	Test to validate the program exits successfully upon hitting "4" in the Shelf-Smart menu.	4	Exiting the program. Goodbye!	Exiting the program. Goodbye!	Pass