Manual End-to-End Testing

Note: In each case when launching the application to login for database access use 'root' as the username and the password associated with the root MySQL user on the system.

Iteration 1 Tests:

Test Description:
Adding a new item to the fridge from the selection provided by the application.

Preconditions:
An item with the name 'Peanut Butter - Jar' shouldn't already be added to the fridge.

Instructions:
1) Launch the application.
2) Click the 'Your Fridge and Groceries' button. A new view will be loaded.
3) Click the 'Add Item' button which is to the right of the search bar. A new view will be loaded.
4) Select 'Select an item from our database.' in the selection at the top. A new view with input fields will appear.
5) Among the provided list of item names select 'Peanut Butter - Jar'.
6) In the text field labeled with 'Quantity' enter '9'.
7) Click the 'Add Item' button next to the input field in step (6)
8) Click the 'Back' button above the search bar. You will be brought back to the 'Your Fridge and Groceries' screen.

Expected Result:
Among the list of 'Your Fridge Items' a new item should be added in accordance with the selected sorting order with the displayed text as 'Peanut Butter - Jar: 9 units'.

Test Description:
Creating an entirely new item and adding it to the fridge.

Preconditions:
An item with the name 'Kitkat Chocolate - Bar' shouldn't already be added to the fridge.

Instructions:
1) Launch the application.
2) Click the 'Your Fridge and Groceries' button. A new view will be loaded.
3) Click the 'Add Item' button which is to the right of the search bar. A new view will be loaded.
4) Select 'Create your own item' in the selection at the top. A new view with input fields will appear.
5) In the text field beside 'Item Name: ' enter the text 'Kitkat Chocolate - Bar'.
6) From the dropdown labeled 'Amount Type' select the 'Unit-based Item' option.
7) A new text field with the text 'Amount Remaining' will appear. Clear the text and enter '5'
8) Click the 'Add Item' button at the bottom.
9) Click the 'Back' button above the search bar. You will be brought back to the 'Your Fridge and Groceries' screen.

Expected Result:

Among the list of 'Your Fridge Items' a new item should be added in accordance with the selected sorting order with the displayed text as 'Kitkat Chocolate - Bar: 5 units'.

Test Description:
Remove an item from the fridge

Precondition:
The fridge should have at least 1 item in stock.

Instructions:
1) Launch the application.
2) Click the 'Your Fridge and Groceries' button. A new view will be loaded.
3) Select the first item in the list with the title 'Your Fridge Items'
4) Click the 'Remove' button near the bottom-right corner of the list of items.
5) Click 'Yes' on the popup dialog to confirm the deletion of the item.

Expected Result:
The selected item should disappear and all items below it would shift upwards. None of the other items should be affected and their order should remain the same.

Test Description:
Getting a more comprehensive view of the items in my fridge.

Precondition:
The fridge should have at least 1 item in stock.

Instructions Part A:
1) Launch the application.
2) Click the 'Your Fridge and Groceries' button. A new view will be loaded.
3) Click the 'Compressed View' button which is underneath the search bar.

Expected Result A:
The user should still see a list of items that are in the fridge, however now all of the increment, decrement, and remove buttons should be unique to each item. The user will also be able to see the elements of the fridge in a more spread out fashion as well as a visual describing how much of the item they have in stock of.

Instructions Part B:
1) Click the same button which is now labeled with 'Expressive View'.

Expected Result B:
The user should see the same view as in step (2) which shows a compressed view of all fridge items.

Test Description:
Search the contents of the fridge to look for an item that you want to modify.

Precondition:
The fridge should have enough items so that not all of them are visible on the screen at the same time. The fridge should also have an item with the name 'Apples'

Instructions:

1) Launch the application.
2) Click the 'Your Fridge and Groceries' button. A new view will be loaded.
3) In the input field next to 'Search Item: ' enter the text 'Appl'.
4) Click the 'Search' button to the right of the input field.

Expected Result:
Only items that contain the substring 'appl' (not case-sensitive) should appear on the list.
All items in your fridge that include this substring in their name should be displayed. The
'Apples' item should be closer to the top of the list if it wasn't already the first item.

Iteration 2 Tests:

Test Description:
Setting up the favorites list and using it to produce a grocery list.

Preconditions: Remove all items from the favorites that were already there. Have at least 3 items in your fridge already.

Instructions:
1) Launch the application.
2) Click the 'Favorited Items' button. A new view will be loaded.
3) Repeat this step 3 times for the first 3 items in list labeled with 'Your Fridge Items'
   a) If this is the nth time performing this step, then select the nth item in the 'Your Fridge Items'. New input fields/dropdowns will appear at the bottom of the screen.
   b) If the input is a text field, then enter '3'. If the input is a dropdown select the 'Full' option.
   c) Click the 'Add to Favorites List' button.
4) Click the 'Back' button at the top-left corner of the window. This will bring you back to the home page.
5) Click the 'Your Fridge and Groceries' button. This will open up a new view including a grocery list.
6) In the dropdown menu beside the label 'Your Grocery List' on the right side of the window select the 'Favorites List' option.
7) Click the 'Export' button and select the desired directory to place the exported file.
8) Open the exported file in the directory that you specified.

Expected Result:
A pdf document should appear in the selected directory and it should contain the names of all the 3 items that you placed in the favorites list.

Test Description:
Reversing the order of the items displayed under 'Your Fridge Items'.

Precondition:
There should be more than 10 items in the fridge already in the fridge.

Instructions:
1) Launch the application.
2) Click the 'Your Fridge and Groceries' button. A new view will be loaded.
3) Add a new item called the 'Yogurt - Single' using the steps outlined in the manual test for creating an entirely new item in the iteration 1 tests.
4) By default this dropdown labeled with 'Sort By: ' is set with Alphabetical. Select the 'Reverse Alphabetical' option in the dropdown menu.

Expected Result:
The Yogurt item which starts with Y should now be visible near the top of the list labeled 'Your Fridge Items'. Additionally all items will be ordered in reverse alphabetical order (Starting with Z and going down to A).

Test Description:
Set some items in the grocery list.

Preconditions: The fridge should have at least 5 items in it.

Instruction:
1) Launch the application.
2) Click the 'Your Fridge and Groceries' button. A new view will be loaded.
3) For each item currently in the list labeled 'Your Grocery List':
    a) Select the item.
    b) Click 'Remove Grocery Item'
4) Repeat this step 5 times
    a) For the nth repeat of the step, select the nth item in the list labeled 'Your Fridge Items'
    b) Click the 'Add to Grocery List' button which is the bottom-leftmost UI element on the window.
5) Ensure that the dropdown above the grocery list has selected 'Grocery List'
6) Click the 'Export' button underneath the grocery list of items.
7) Select the directory where the PDF of the grocery list should be exported from the file chooser.
8) Click 'OK' on the popup message communicating the export was successful.
9) Go to the directory that was specified in step (7) and open the PDF file that was created with the name 'GroceryList_[Today's_Date]'

Expected Results:
After step 4, the first 5 items should have their names listed in the list labeled 'Your Grocery List'. After step 9, a PDF should be generated with the name specified in step (9). This PDF will include the title 'Grocery List', the date that it was generated, and a list of the names of the first 5 items in the fridge that were placed in the grocery list in step 4.

Test Description:
Ensure that we get warned for items that are expiring soon.

Precondition:
An item with the name 'Bread - Loafs' shouldn't already be added to the 'Your Fridge Items' list.

Instructions:
1) Launch the application.
2) Select the 'User Preferences' button. A new view will be loaded for user settings.
3) Set the dropdown menu associated with 'Expiry Warning Threshold (Days)' to 4.
4) Click the 'Back' button near the top of the window to go back to the home page.
5) Select the 'Your Fridge and Groceries' button. A new view will be loaded.
6) Click the 'Add Item' button next to the search bar. A new view will be loaded for adding new items to the fridge.
7) Select the 'Create your own item.' among the 2 choices near the top of the window.
8) In the Item Name field enter the text 'Bread - Loafs'.
9) Select 'Unit-based Item' in the Amount Type dropdown menu,
10) In the Amount Remaining field (beside the dropdown) enter '5'.
11) In the 'Expiry Date' labeled triple drop-down menu select values for the Date, Month and Year such that the Date is 3 days in the future from today.
12) Click the 'Add Item' button at the bottom of the window.
13) Click the 'Back' button at the near the top of the window

14) Close the application.
15) Relaunch the application.

Expected Result:
After step (13) the item 'Bread Loaf' should be added to the list labeled 'Your Fridge Items'. Additionally it should be displayed with the selected expiry date from step (11). It should also be labeled with '[EXPIRY WARNING]'. Additionally, it should be come before all non-expiring items in the fridge.
After step (15) a popup should appear notifying that some items have expired. All items that have the expiry dates set before 4 days in the future should be featured on this list. The item 'Bread - Loaf' should be on this list.

Iteration 3 Tests:

Test Description:
Learn how to make a Grilled Cheese Sandwich.

Preconditions:
None.

Instructions:
1) Launch the application.
2) Click the 'Recipe Recommendations' button. A new view displaying recipes will be loaded.
3) In the list on the left side of the screen select the item starting with 'Grilled Cheese - Whole Wheat'. It may be followed with '(missing items)' pay no mind to this for now.
4) Click the 'Display Recipe' button which is directly above this list.

Expected Result:
On the right side of the screen text should be loaded after step (4). It should mention the title of the meal 'Grilled Cheese - Whole Wheat'. Below this title it will list out the required ingredients and quantities. If the fridge currently doesn't have sufficient quantity of an ingredient, the ingredient will be labeled with '(missing items)'. After the ingredients there should be an enumerated list of instructions to put together the sandwich.

Test Description:
Revert a change made to the fridge by using the export and import feature.

Preconditions:
At least 1 item with quantity greater than 0 must be in the fridge items list already.

Instructions:
1) Launch the application.
2) Click the 'Backup Data' button. A new view displaying export/import options will be loaded.
3) Click the 'Export' tab/button at the top-right of the panel.
4) Click the 'Select File Destination' button which will open a file selection menu.
5) Select the Desktop as the directory to export the data backup to.
6) In the multiple choice selection labeled 'Data to be Exported' select only 'Fridge Items'.
7) Click the 'Export Data' button.
8) Click the 'Back' button to go back to the home page.
9) Click the 'Your Fridge and Groceries' button. A new view will be loaded.
10) Among the items in the list labeled 'Your Fridge Items' select the first item with a quantity greater than 0.
11) Click the 'Decr' button.
12) Click the 'Back to Home Page' button to go back to the home page.
13) Click the 'Backup Data' button. A new view for exporting/importing will be loaded.
14) Select the 'Import' tab/button.
15) Click the 'Select File Destination' button and select the exported file with name 'sifsDBBackup_[Date].sql' from step (7).
16) Click the 'Import Data' button.
17) Click the 'Back' button to return to the home page.

18) Click the 'Your Fridge and Groceries' button.

Expected Result:
After step (7) a file with the name specified in step (15) should be generated on the user's desktop. After step (11) the stock of the first item with non-zero quantity should be decremented. After step (18) the 'Your Fridge List' labeled list should show the decrement made to the selected item was reverted to the original amount. This shows that the import did indeed override the data.

Test Description:
Smart feature automatic deduction on the day after tomorrow. (Will only activate the automatic deduction in there were no adjustments done the day previous.)

Preconditions:
No item with the name "Kitkat Chocolate - Bars' should already be added the 'Your Fridge Items' list, nor should there have been any items of the same name on the previous day (otherwise the smart algorithm will consider its consumption on previous days which is an intended feature, but will disrupt the test as the resulted numbers may depend on user interaction not accounted for in the scope of the instructions of the test).

Instructions:
1) Launch the application.
2) Click the 'User Preferences' button.
3) Toggle the Smart Feature Setting to 'On'.
4) Click the 'Back' button to go to the home page.
5) Click the 'Your Fridge and Groceries' button.
6) Click the 'Add Item' button.
7) Using the steps described in the manual tests to create a new item and add it to the fridge list, create an item called 'Kitkat Chocolate - Bars' with a Unit-based Value stock of 10 units.
8) Click the 'Back' button to go back to view the 'Your Fridge Items' List
9) Click the 'Back to Home Page' button to save the current state of the fridge.
10) Click the 'Your Fridge and Groceries' button.
11) Select the item 'Kitkat Chocolate - Bars'
12) Click the 'Decr' button 4 times. The item's stock will now be 6 units.
13) Close the application.
14) Wait for 2 days.
15) On the next day, relaunch the application.
16) Click the 'Your Fridge and Groceries' button.

Expected Result:
The stock of the 'Kitkat Chocolate - Bars' item should be reduced down to 4 units after step (16) due to the automatic deduction made by the smart feature algorithm.

Test Description:
Ensuring accurate history tracking of the user.

Preconditions:
No item with the name "Kitkat Chocolate - Bars' should already be added the 'Your Fridge Items' list, nor should there have been any items of the same name on the previous day (otherwise the smart algorithm will consider its consumption on previous days which is an intended feature, but will disrupt the test as the resulted numbers may depend on user

interaction not accounted for in the scope of the instructions of the test).

Instructions:
1) Launch the application.
2) Click the 'User Preferences' button.
3) Toggle the Smart Feature Setting to 'On'.
4) Click the 'Back' button to go to the home page.
5) Click the 'Your Fridge and Groceries' button.
6) Click the 'Add Item' button.
7) Using the steps described in the manual tests to create a new item and add it to the fridge list, create an item called 'Kitkat Chocolate - Bars' with a Unit-based Value stock of 10 units.
8) Click the 'Back' button to go back to view the 'Your Fridge Items' List
9) Click the 'Back to Home Page' button to save the current state of the fridge.
10) Click the 'Your Fridge and Groceries' button.
11) Select the item 'Kitkat Chocolate - Bars'
12) Click the 'Decr' button 4 times. The item's stock will now be 6 units.
13) Click the 'Back to Home Page' button.
14) Click the 'Consumption History' button.
15) Close the application.
16) Wait for2 days.
17) On the next day, relaunch the application.
18) Click the 'Consumption History' button.

Expected Result:
After step (14) a table will be displaying showing consumption history. On the column for the current day, in highlighted red there should be '-4 Kitkat Chocolate - Bars'.
After step (18) the same table will be displayed except all columns will be shifted to the left twice. The rightmost column will be new and include all changes made by the smart feature. The rightmost and 3nd rightmost columns will now contain '-2 Kitkat Chocolate - Bars' and '-4 Kitkat Chocolate - Bars' in highlighted red.