System and Unit Test Report
Product name: Shelf Chef
Team name: The chefs
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System Testing:

Sprint 1:

- As an end user, I want to be able to input what ingredients I have into a search bar so that I can see what recipes are potential options to make.
- As an end user, I want recipes to be displayed in a clean fashion so that I can easily find a recipe I want to make.

Scenario
1. Start shelf chef app
2. See search bar displayed on homepage
3. Be able to click on the search bar and type out ingredients <eggs>, <butter>, and <milk>.
4. As the user types out each ingredient, they should be able to see a list of acceptable ingredients that complete the word they are searching for.
5. Click search button
6. User should see recipes loading
7. Once loaded, the user should see recipes displayed in a list, with recipe names displayed in a large, easy to read font, along with the necessary ingredients below it.

- As a developer, I want a database to contain an extensive list of recipes so that anyone who uses this can find a suitable recipe.
- As a developer, I want a database containing the ingredients from all of the recipes so that no matter what ingredient a user inputs, a recipe can be found that contains those ingredients.

Scenario:
1. Start shelf chef app
2. Input ingredients <eggs>, <butter>, and <milk> into search bar
3. As the user types out each ingredient, they should be able to see a list of acceptable ingredients that complete the word they are searching for.
4. Click search button
5. User should see recipes loading
6. Once loaded, user should see (10+ recipes) that pertain to their given ingredients

Sprint 2:

- As an end user, I want a clean layout and navigation structure for this app, so that I can quickly find my way around the recipe generator's features.

Scenario:
1. Start shelf chef app
2. See homepage is clutter free with only a search bar and an avatar icon
3. Input ingredients <eggs>, <butter>, and <milk> into search bar, selecting each ingredient as it appears in the autofill suggestions
4. Click 'search' button
5. On recipe load, see the simple 'return to search' button in the top left of the recipe list.
6. Click on a recipe
7. See the 'return to search results' button in the top left of the recipe display page.

- As an end user, I want to be able to have intuitive search capabilities for what ingredients I have in order to be able to find appropriate recipes.

Scenario:
1. Start shelf chef app
2. Click search bar on homepage
3. Begin typing out <green beans>
4. See autofill pop up with suggested words to input after each letter is typed
5. Click on <green beans> from suggested list
6. See <green beans> get added to the search tag list

- As an end user, I want the recipes to be displayed in a clear and concise manner so that reading and following the recipe is a simple process

Scenario:
1. Start shelf chef app
2. Input ingredients <eggs>, <butter>, and <milk> into search bar, selecting each ingredient as it appears in the autofill suggestions
3. Click 'search' button
4. Once recipes load, click on first recipe
5. See recipes ingredients and amounts are listed on recipe display page
6. See recipe instructions are listed out in order on recipe display page

- As an end user, I want a pleasant color palette in this app, so that there are no harsh colors, nor are there any hard-to-see areas.

Scenario:
1. Start shelf chef app

2. See background color gradient
3. Input ingredients <eggs>, <butter>, and <milk> into search bar, selecting each ingredient as it appears in the autofill suggestions
4. See input ingredients color scheme
- As a developer, I want an eye-catching logo for my app, as this way I can attract as many users as possible.

The logo was initially going to be displayed in the app, but we decided against it to keep the UI looking clean. App logo would now only be viewable from the phone app widget before being opened, or as the tab logo on the chrome browser.

Sprint 3:

- As an end user, I want to be able to customize my own profile, so that I can feel as if I'm an actual user of the app, not just an observer.

Scenario:
1. Start the shelf chef app
2. Click user avatar icon in top left corner
3. Click 'sign in' button
4. Enter username <daniel>
5. Enter password <password>
6. Click log in
7. See yourself redirected back to homepage
8. Click back on user profile icon in top left corner
9. See yourself redirected to user profile page
10. Click 'edit profile' button in right corner of profile page
11. Change name of profile to <not daniel>
12. Click 'save profile'
13. See name change reflected in profile

- As an end user, I want to be able to like recipes that I am a fan of, so that I feel that my opinion is heard

Scenario:
1. Start the shelf chef app
2. Input ingredients <eggs>, <butter>, and <milk> into search bar, selecting each ingredient as it appears in the autofill suggestions
3. Click 'search' button
4. Once recipes load, click on first recipe
5. See 'like' button thumbs up icon in top right corner of recipe display page
6. Click 'like' button
7. Click on profile avatar in top left corner
8. See liked recipe bookmarked on user profile page

- As a developer, I want a tidy recipe database for optimized search times for the users
  Went through all the ingredients (each element in NER column is an ingredient) in the
database, counted occurrences of each ingredient, and eliminated all ingredients that occurred
less than 250 times. Then went through all the recipes and eliminated any recipes that
contained any of the ingredients that were deleted.

Sprint 4:

- As a Developer, I want well organized and easy to follow code so that I can better
  understand what the code is doing when I have to debug it.
  No scenario, code was just reviewed and made uniform by following our previously
  written style guide if it wasn't already.
- As a User, I want to be able to stay logged in to my account when I refresh the web page
Scenario:
  1. Start the shelf chef app
  2. Click user avatar icon in top left corner
  3. Click 'sign in' button
  4. Enter username <daniel>
  5. Enter password <password>
  6. Click log in
  7. See yourself redirected back to homepage
  8. Refresh browser
  9. See user profile is still logged in despite refresh

- As a User, when I view a web application, I should see a visually pleasing color scheme
  and page layout that is consistent across the entirety of the application. (primarily button
  cleanup)
  1. Start the shelf chef app
  2. See button and component format on homepage
  3. Click user avatar icon in top left corner
  4. Click 'sign in' button
  5. Enter username <daniel>
  6. Enter password <password>
  7. Click log in
  8. See yourself redirected back to homepage
  9. Click user profile avatar
  10. See user profile page component and buttons follow same formatting scheme
  11. Click 'return to search'
  12. Input ingredients <eggs>, <butter>, and <milk> into search bar, selecting each ingredient
      as it appears in the autofill suggestions
  13. Click 'search' button

14. Once recipes load, click on first recipe
15. See recipe display buttons follow formatting scheme

Unit Testing:

Login Page/Signup Page
Test Cases
- While NOT logged in, pressing Avatar on the main screen, and seeing if both login/signup buttons take you to the correct page.
- While NOT logged in, pressing Avatar on screen with a list of recipes, and seeing if both login/signup buttons take you to the correct page.
- While NOT logged in, pressing Avatar on the displayed recipe screen, and seeing if both login/signup buttons take you to the correct page.
- While logged in, pressing Avatar on the main screen, and seeing if it takes you to profile.
- While logged in, pressing Avatar on screen with a list of recipes, and seeing if it takes you to profile.
- While logged in, pressing Avatar on the displayed recipe screen, and seeing if it takes you to profile
- Signing up with empty fields
- Signing up with only filled username
- Signing up with only filled password
- Signing up with only filled avatar
- Signing up with only empty avatar URL
- Signing up with invalid avatar URL
- Signing up with all valid fields
- Logging in with empty fields
- Logging in with empty username
- Logging in with empty password
- Logging in with nonexistent credentials
- Logging in with valid credentials

Test Details

While NOT logged in, click on the Avatar on the main screen
While NOT logged in, pressing Avatar on the main screen, and see if both login/signup buttons take you to the correct page.
Result: PASS
Description: buttons work correctly

While NOT logged in, click on the Avatar on screen with a list of recipes
While NOT logged in, click on the Avatar on screen with a list of recipes, and see if both login/signup buttons take you to the correct page.
Result: PASS
Description: buttons work correctly

While NOT logged in, click on the Avatar on the displayed recipe screen
While NOT logged in, pressing Avatar on the displayed recipe screen, and seeing if both login/signup buttons take you to the correct page.
Result: PASS
Description: buttons work correctly

While logged in, click on Avatar on the main screen
While logged in, pressing Avatar on the main screen, and seeing if it takes you to profile
Result: PASS
Description: button works correctly

While logged in, click on the Avatar on screen with a list of recipes
While logged in, pressing Avatar on screen with a list of recipes, and seeing if it takes you to profile
Result: PASS
Description: button works correctly

While logged in, click on the Avatar on the displayed recipe screen
While logged in, pressing Avatar on the displayed recipe screen, and seeing if it takes you to profile
Result: PASS
Description: button works correctly

Signing up with empty fields
Attempting to create an account with all fields empty (i.e. not entering anything in the field)
Result: FAIL
Description: notification says account get created

Signing up with only filled username
Attempting to create an account with only the username field filled (i.e. 123), but the other two fields blank (i.e. not entering anything in the field)
Result: FAIL
Description: notification says account get created

Signing up with only filled password
Attempting to create an account with only the password field filled (i.e. 123), but the other two fields blank (i.e. not entering anything in the field)
Result: FAIL
Description: notification says account get created

Signing up with only filled avatar
Attempting to create an account with only the avatar URL field filled (i.e. https://cdn.pixabay.com/photo/2015/04/23/22/00/tree-736885__480.jpg), but the other two fields blank (i.e. not entering anything in the field)
Result: FAIL
Description: notification says account get created

Signing up with only empty avatar URL
Attempting to create an account with only the avatar URL field blank (i.e. not entering anything in the field), and the other two fields filled (i.e. 123)
Result: PASS
Description: Account is created with default avatar

Signing up with invalid avatar URL
Attempting to create an account with an invalid avatar URL field (i.e. 123)
Result: PASS
Description: Account is created with default avatar

Signing up with all valid fields
Attempting to create an account with all fields valid (i.e. 123), including a valid avatar URL (i.e. https://cdn.pixabay.com/photo/2015/04/23/22/00/tree-736885__480.jpg)
Result: PASS
Description: Account created successfully

Logging in with empty fields
Attempting to log in with all fields empty (i.e. not entering anything in the field)
Result: PASS
Description: nothing happens, not allowed to sign in

Logging in with empty username
Attempting to log in with the username field empty (i.e. not entering anything in the field, but 123 for other fields)
Result: PASS

Description: nothing happens, not allowed to sign in

Logging in with empty password
Attempting to log in with the password field empty (i.e. not entering anything in the field, but 123 for other fields)
Result: PASS
Description: nothing happens, not allowed to sign in

Logging in with nonexistent credentials
Attempting to log in with credentials that do not exist in the database (i.e. an invalid user)
Result: PASS
Description: doesn't allow login, gives 'incorrect username/password' notification

Logging in with valid credentials
Attempting to log in with valid credentials (i.e. a successfully created account)
Result: PASS
Description: logs us in, gives 'log in successful' notification, changes profile picture/name

Edit User Profile
Test Cases
- Click edit profile button and then click save button
- Click edit profile button and edit the avatar link then click save button
- Click edit profile button and edit username then click save button
- Click edit profile button and edit the avatar link and username then click save button
- Click edit profile button and edit username to be blank then click save button
- Click edit profile button and edit avatar link to be blank then click save button
- Click edit profile button and edit avatar link and username to be blank then click save button

Test Details
*constant profile used for edit user profile tests:
Username: daniel12
Password: password

Click edit profile button and then click save button
Click on the edit button and then immediately after click the save button.
Result: SUCCESS

Description: Successfully displays the edit profile UI and then returns to the user profile UI once save has been clicked.

Click edit profile button and edit the avatar link then click save button
Click on the edit button and then edit the avatar link to https://iupac.org/wp-content/uploads/2018/05/default-avatar.png and click the save button.
Result: SUCCESS
Description: Successfully displays the edit profile UI, changes the user avatar and then returns to the user profile UI once save has been clicked.

Click edit profile button and edit username then click save button
Click on the edit profile button and then edit the username to daniel1 and click the save button.
Result: SUCCESS
Description: Successfully displays the edit profile UI, changes the user's username and then returns to the user profile UI once save has been clicked.

Click edit profile button and edit the avatar link and username then click save button
Click on the edit profile button and edit the avatar link to https://iupac.org/wp-content/uploads/2018/05/default-avatar.png and username to daniel1 then click the save button.
Result: SUCCESS
Description: Successfully displays the edit profile UI, changes the user's avatar link and username and then returns to the user profile UI once save has been clicked.

Click edit profile button and edit username to be blank then click save button
Click on the edit button profile button and edit the username to be blank then click save.
Result: FAIL
Description: Fetch error when trying to update the username to be blank.
Attempted fix: Check that the username and user avatar link have length greater than 1 to be able to exit edit mode by clicking save.
Fix Result: SUCCESS
Description: Successfully displays alert when a user tries to save profile with a blank username or avatar url.

Click edit profile button and edit avatar link to be blank then click save button
Click on the edit button profile button and edit the user avatar link to be blank then click save.

Result: SUCCESS
Description: Successfully displays alert when a user tries to save profile with a blank username or avatar url.

Click edit profile button and edit avatar link and username to be blank then click save button
Click on the edit button profile button and edit avatar link and the username to be blank then click save.
Result: SUCCESS
Description: Successfully displays alert when a user tries to save profile with a blank username or avatar url.

Search Bar
Test Cases
- Type into the search bar
- Click on ingredient from the autosuggest list
- Click the "x" on an ingredient tag
- Click the "Search" button with 0 ingredients
- Click the "Search" button with 1 ingredient
- Click the "Search" button with 15 ingredients

Test Details
Type into the search bar
Typing into the search bar should generate a list of ingredients similar to what is input
Result: SUCCESS
Description: List of suggested ingredients matches what was input

Click on ingredient from the autosuggest list
Clicking on an ingredient from the autosuggest list should add it as a tag above the search bar
Result: SUCCESS
Description: Selected ingredients get added as tags

Click the "x" on an ingredient tag
Clicking on the "x" on an ingredient tag removes it from the ingredients to be searched on
Result: SUCCESS
Description: Ingredient gets removed

Click the "Search" button with 0 ingredients

Click the "Search" button when 0 ingredients are selected
Result: SUCCESS
Description: Displays the correct response of "No recipes found"

Click the "Search" button with 1 ingredient
Click the "Search" button when 1 ingredient is selected
Result: SUCCESS
Description: Displays list of recipes containing that ingredient

Click the "Search" button with extremely large number of ingredients (15+)
Click the "Search" button when a large number of ingredients are selected
Result: SUCCESS
Description: Displays the correct response of "No recipes found"

Recipe List
Test Cases
- Click return to search button
- Recipes ordered from least to most ingredients
- Recipes ordered from most to least number of likes
- Ingredient tags display correct status
- Click on a recipe

Test Details
Click return to search button
While viewing a list of recipes, click the "Return to search" button
Result: SUCCESS
Description: Hides the list of recipes and displays the ingredient search bar

Recipes ordered from least to most ingredients
After inputting ingredients, the recipes returned should be listed in order from the least to the greatest number of ingredients in each recipe
Result: SUCCESS
Description: Recipes are displayed correct order

Recipes ordered from least to most ingredients then most to least number of likes
After inputting ingredients, the recipes returned should be listed in order from the least to the greatest number of ingredients in each recipe and then ordered based on the number of likes a recipe has
Result: SUCCESS
Description: Recipes are displayed correct order

Ingredient tags display correct status
After inputting ingredients, those ingredients should be highlighted on the list of ingredients displayed for each recipe
Result: SUCCESS
Description: Ingredients entered into the search bar display in a different color from the rest of the ingredients a recipe has

Click on a recipe
Clicking on a recipe from the recipe list should then display the selected recipe
Result: SUCCESS
Description: The correct recipe is displayed after being clicked on from the recipe list

Recipe Display
Test Cases
- Click on recipe to display when logged in
- Click on recipe to display when not logged in
- Checking if missing ingredients corresponds to tags we inputted
- Checking if we can scroll through all directions
- Clicking on return to search list, clicking on new recipe, and checking if recipe is displayed correctly

Test Details
Click on recipe to display when logged in
While logged into the app, we click on a recipe to display after inputting tags.
Result: SUCCESS
Description: Recipe is displayed correctly.

Click on recipe to display when not logged in
While NOT logged into the app, we click on a recipe to display after inputting tags.
Result: SUCCESS
Description: Recipe is displayed correctly.

Checking if missing ingredients corresponds to tags we inputted
After inputting tags and searching for a recipe, we check to see if the clicked recipe to display has matching ingredients missing field as the tags we inputted.
Result: SUCCESS
Description: Recipe's missing ingredients field shows only the ingredients we are missing, and does not include any of the input tags.

Checking if we can scroll through all directions
After clicking on a recipe to display, if the recipe has more directions than can be displayed at once, checking if the scroll button works for the directions list.
Result: SUCCESS
Description: Recipe's directions list can be scrolled through smoothly and properly.

Clicking on return to search list, clicking on new recipe, and checking if recipe is displayed correctly
While looking at a displayed recipe, clicking on the return to search button, clicking on a new recipe to display, and checking if that newly clicked recipe is displayed correctly.
Result: SUCCESS
Description: New recipe is displayed correctly, there are no lingering elements from previous recipe.

Liked Recipes
Test Cases
- Click the like button on the recipe display page when not logged in
- Click the like button on the recipe display when logged in and the recipe is unliked
- Click the like button on the recipe display page when logged in and the recipe is liked
- Click the like button on the liked recipe display page

Test Details
Click the like button on the recipe display page when not logged in
While viewing a recipes display page and not logged in as a user, click the like button
Result: SUCCESS
Description: Taken to the account sign up page

Click the like button on the recipe display when logged in and the recipe is unliked
While viewing an unliked recipes display page and logged in as a user, click the like button
Result: SUCCESS
Description: The liked icon changes from unliked to liked, the recipes like count increases by 1, and the recipe is added to the liked recipes list on the user profile

Click the like button on the recipe display page when logged in and the recipe is liked

While viewing a liked recipes display page and logged in as a user, click the like button
Result: SUCCESS
Description: The liked icon changes from liked to unliked, the recipes like count decreases by 1, and the recipe is removed from the liked recipes list on the user profile

Click the like button on the liked recipe display page
While viewing a liked recipe from the user liked recipe list, click the like button
Result: SUCCESS
Description: The liked icon changes from liked to unliked, the recipes like count decreases by 1, the recipe is removed from the liked recipes list on the user profile, and the app view changes back to the user profile