1. Manage Access

Test Case: Entering the application as a guest (Manage Access)

Pre-condition: The user is not logged in.

| Step | Action | Reaction | Result |
|------|---|---------------------------------|--------|
| 1 | User chooses to continue as a guest without creating an account by clicking the 'Continue as a Guest' button. | System displays the guest view. | Works |

Test Case: Creating an account with correct data (Manage Access)

Pre-condition: The user is not logged in.

| Step | Action | Reaction | Result |
|------|--|---|--------|
| 1 | User enters the email 'test1email@via.dk', the username 'test1username', the password 'Test1password' and the confirmation of the password 'Test1password' and approves the data entered by clicking the button 'Sign Up' | System validates the given data, creates the account and saves the changes. System allows access to the account and displays the member view. | Works |

Test Case: Creating an account without filling in the fields (Manage Access)

Pre-condition: The user is not logged in.

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User does not fill in the fields for username, email, password and/or confirmation of the password and approves the data entered by clicking the button 'Sign Up'. | A message is displayed, the process is cancelled and the account is not saved in the system. | Works |

Test Case: Creating an account with incorrect data (Manage Access)

Pre-condition: The user is not logged in.

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User inputs incorrect username 't2', incorrect email 'test2email', incorrect password 'wrongtestpassword' and/or incorrect confirmation of the password 'wrongtestpassword1' and approves the data entered by clicking the button 'Sign Up'. | A message is displayed, the process is cancelled and the account is not saved in the system. | Works |

Test Case: Creating an account with already existing data (Manage Access)

Pre-condition: The user is not logged in and an account with the username 'test3username' already exists in the system.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User inputs email 'test3email@via.dk ', password 'Test3password' and an already taken username 'test3username' and approves the data entered. | A message is displayed, the process is cancelled and the account is not saved in the system. | Works |

2. View Recipes

Test Case: Searching an existent recipe (View Recipes)

Pre-condition: A list of all the recipes that are in the system is displayed. System contains the recipe with the title 'Test1Recipe' and with the ingredients 'test1ingredient1' and 'test1ingredient2'.

| Step | Action | Reaction | Result |
|------|--|---|--------|
| 1 | User enters the title 'Test1Recipe' or selects the ingredients 'test1ingredient1' and 'test1ingredient2' from the ingredients list and clicks the button 'Filter'. | System displays a list of recipes which contain the given details | Works |

Test Case: Searching an inexistent recipe (View Recipes)

Pre-condition: A list of all the recipes that are in the system is displayed. System does not contain the recipe with the title 'Test2Recipe' and with the ingredients 'test2ingredient1' and 'test2ingredient2'.

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User enters the title 'Test2Recipe' or selects the ingredients 'test2ingredient1' and 'test2ingredient2' from the ingredients list of a recipe and clicks the button 'Filter'. | There are no recipes that match the given details, so the system displays an empty list. | Works |

Test Case: Multiplying the amount of the ingredients of a selected recipe (View Recipes)

Pre-condition: A list of all the recipes that are in the system is displayed. System contains the recipe with the title 'Test1Recipe' with the author 'test1author', the ingredients 'test1ingredient1' and 'test1ingredient2' and the description 'test1description'.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User selects the recipe 'Test1Recipe' from the list of recipes. | System shows the recipe's details (the title 'Test1Recipe', the author 'test1author', the ingredients 'test1ingredient1' and 'test1ingredient2' and the description 'test1description'). | Works |
| 2 | User enters the ratio '1.5' of ingredients he wants to use and clicks the button 'Calculate'. | System calculates the amount of each ingredient by multiplying it with the given ratio and displays the new amounts of ingredients. | Works |

3. Manage Member's Recipes

Test Case: Adding a recipe with correct data as a Member (Manage Member's Recipes)

Pre-condition: The member is logged in.

| Step | Action | Reaction | Result |
|------|--|---|--------|
| 1 | User enters a title 'Test3Recipe', the ingredients 'test3ingredient1' and 'tes3ingredient2' with their amounts 'test3amount1', 'test3amount2' and a description 'test3description' of a recipe and approves the data entered by clicking the button 'Add'. | System validates data, adds a new recipe with the given data to the list of recipes and displays an approval message. System saves the changes. | Works |

Test Case: Adding a recipe with empty data as a Member (Manage Member's Recipes)

Pre-condition: The member is logged in.

| Step | Action | Reaction | Result |
|------|---|---|--------|
| 1 | User does not fill in the fields for title, ingredients with amounts and/or description and approves the data entered by clicking the button 'Add'. | A message is displayed, the process is cancelled and the recipe is not saved in the system. | Works |

Test Case:Editing a recipe with correct data as a Member and approving the action (Manage Member's Recipes)

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User selects the recipe with the title 'Test3Recipe' from the list. | System shows the recipe's details (title 'Test3Recipe', ingredients 'test3ingredient1' and 'test3ingredient2' and description 'test3description'). | Works |
| 2 | User enters a new title 'Test4Recipe'/ new ingredients 'test4ingredient'/ new description 'test4description' and approves the data entered by clicking the button 'Edit'. | System displays a message and waits for user confirmation. | Works |
| 3 | User confirms the action by clicking the button 'OK'. | System validates the data entered. System displays the approval message and saves the changes. | Work |

Test Case: Editing a recipe as a Member with correct data and not approving the action (Manage Member's Recipes)

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User selects the recipe with the title 'Test3Recipe' from the list. | System shows the recipe's details (title 'Test3Recipe', ingredients 'test3ingredient1' and 'test3ingredient2' and description 'test3description'). | Works |
| 2 | User enters a new title 'Test4Recipe'/ new ingredients 'test4ingredient'/ new description 'test4description' and approves the data entered by clicking the button 'Edit'. | System displays a message and waits for user confirmation. | Works |
| 3 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without editing the recipe. | Work |

Test Case: Editing a recipe with empty data as a Member and approving the action (Manage Member's Recipes)

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User selects the recipe with the title 'Test3Recipe' from the list. | System shows the recipe's details (title 'Test3Recipe', ingredients 'test3ingredient1' and 'test3ingredient2' and description 'test3description'). | Works |
| 2 | User approves the new data entered without filling in the fields for title, ingredients with amounts and/or description by clicking the button 'Edit'. | System displays a message and waits for user confirmation. | Works |
| 3 | User confirms the action by clicking the button 'OK'. | A message is displayed, the process is cancelled and the recipe is not saved in the system. | Works |

Test Case: Editing a recipe with empty data as a Member and not approving the action (Manage Member's Recipes)

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User selects the recipe with the title 'Test3Recipe' from the list. | System shows the recipe's details (title 'Test3Recipe', ingredients 'test3ingredient1' and 'test3ingredient2' and description 'test3description'). | Works |
| 2 | User approves the new data entered without filling in the fields for title, ingredients with amounts and/or description by clicking the button 'Edit'. | System displays a message and waits for user confirmation. | Works |
| 3 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without editing the recipe. | Work |

Test Case: Removing a recipe as a Member and approving the action (Manage Member's Recipes)

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User selects the recipe with the title 'Test3Recipe' from the list. | System shows the recipe's details (title 'Test3Recipe', ingredients 'test3ingredient1' and 'test3ingredient2' and description 'test3description'). | Works |
| 2 | User chooses to remove the recipe by clicking the button 'Remove'. | System displays a message and waits for user confirmation. | Works |
| 3 | User confirms the action by clicking the button 'OK'. | System removes the recipe from the list and displays the approval message. System saves the changes. | Work |

Test Case: Removing a recipe as a Member and not approving the action (Manage Member's Recipes)

Pre-condition: The member is logged in and has a previously added recipe with the title 'Test3Recipe', the ingredients 'test3ingredient1', 'test3ingredient2' and the description 'test3description'. System displays a list with all the recipes made by the user.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User selects the recipe with the title 'Test3Recipe' from the list. | System shows the recipe's details (title 'Test3Recipe', ingredients 'test3ingredient1' and 'test3ingredient2' and description 'test3description'). | Works |
| 2 | User chooses to remove the recipe by clicking the button 'Remove'. | System displays a message and waits for user confirmation. | Works |
| 3 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without editing the recipe. | Works |

Test Case: Rate a recipe as a Member (Manage Member's Recipes)

Pre-condition: The member is logged in. A list of all the recipes that are in the system is displayed. System contains the recipe with the title 'Test1Recipe', the author 'test1author', the ingredients 'test1ingredient1' and 'test1ingredient2' and with the description 'test1description'.

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User selects the recipe with the title 'Test1Recipe' from the list. | System shows the recipe's details (title 'Test1Recipe', author 'test1author', ingredients 'test1ingredient1' and 'test1ingredient2' and description 'test1description'). | Works |
| 2 | User chooses the number '5' to rate the recipe and clicks the button 'Rate'. | The answer is submitted. System saves the changes. System displays the approval message. | Works |

Test Case: Adding a recipe to favourites as a Member (Manage Member's Recipes)

Pre-condition: The member is logged in. A list of all the recipes that are in the system is displayed. System contains the recipe with the title 'Test1Recipe', the author 'test1author', the ingredients 'test1ingredient1' and 'test1ingredient2' and with the description 'test1description'.

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User selects the recipe with the title 'Test1Recipe' from the list. | System shows the recipe's details (title 'Test1Recipe', author 'test1author', ingredients 'test1ingredient1' and 'test1ingredient2' and description 'test1description'). | Works |
| 2 | User adds the recipe to favourites by clicking the button 'Add to Favourites'. | System displays the approval message and saves the changes. | Works |

Test Case: Removing a recipe from favourites as a Member (Manage Member's Recipes)

Pre-condition: The member is logged in. The member has a previously added recipe to favourites with the title 'Test1Recipe', the author 'test1author', the ingredients 'test1ingredient1' and 'test1ingredient2' and with the description 'test1description'.

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User selects the recipe with the title 'Test1Recipe' from the list of favourites. | System shows the recipe's details (title 'Test1Recipe', author 'test1author', ingredients 'test1ingredient1' and 'test1ingredient2' and description 'test1description'). | Works |
| 2 | User removes the recipe from favourites by clicking the button 'Remove from Favourites'. | System displays the approval message and saves the changes. | Works |

4. Log in

Test Case: User logs in with valid data (Log in)

Pre-condition: An account with the username 'test1username', and the password 'Test1password' already exists in the system.

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User enters the username 'test1username', and the password 'Test1password' and approves the data entered by pressing the button 'Login'. | System validates the given username and password and allows access to the account. | Works |

Test Case: User logs in with invalid data (Log in)

Pre-condition: The account with the username 'test4username' and the password 'test4password' does not exist.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User enters the username 'test4username' and the password 'test4password' and approves the data entered by clicking the button 'Login'. | System does not validate the given username and password. A disapproval message is displayed and the access is denied. | Works |

5. Manage Member's Account

Test Case: Changing email with correct data as a Member approving the action (Manage Member's Account)

Pre-condition: The account exists and the member is logged in.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User enters a new email 'test5email@via.dk' and approves the data entered by clicking the button 'Edit Email'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User confirms the action by clicking the button 'OK'. | System validates the given email and saves the changes. | Works |

Test Case: Changing email with correct data as a Member without approving the action (Manage Member's Account)

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User enters a new email 'test5email@via.dk' and approves the data entered by clicking the button 'Edit Email'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without saving the changes. | Works |

Test Case: Changing email with incorrect data as a Member approving the action (Manage Member's Account)

Pre-condition: The account exists and the member is logged in.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User enters the incorrect email 'test5email' and approves the data entered by clicking the button 'Edit Email'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User confirms the action by clicking the button 'OK'. | A message is displayed, the process is cancelled and the member's password is not changed in the system. | Works |

Test Case: Changing email with incorrect data as a Member without approving the action (Manage Member's Account)

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User enters the incorrect email 'test5email' and approves the data entered by clicking the button 'Edit Email'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without saving the changes. | Works |

Test Case: Changing password with correct data as a Member approving the action (Manage Member's Account)

Pre-condition: The account exists and the member is logged in.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User enters a new password 'Test5password' and approves the data entered by clicking the button 'Edit Password'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User confirms the action by clicking the button 'OK'. | System validates the given email and saves the changes. | Works |

Test Case: Changing password with correct data as a Member without approving the action(Manage Member's Account)

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User enters a new password 'Test5password' and approves the data entered by clicking the button 'Edit Password'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without saving the changes. | Works |

Test Case: Changing password with incorrect data as a Member approving the action(Manage Member's Account)

Pre-condition: The account exists and the member is logged in.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User enters an empty password or the incorrect password 'wrongtestpassword' and approves the data entered by clicking the button 'Edit Password'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User confirms the action by clicking the button 'OK'. | A message is displayed, the process is cancelled and the member's password is not changed in the system. | |

Test Case: Changing password with incorrect data as a Member without approving the action(Manage Member's Account)

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User enters an empty password or the incorrect password 'wrongtestpassword' and approves the data entered by clicking the button 'Edit Password'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without saving the changes. | Works |

Test Case: Deleting the account as a Member and approving the action (Manage Member's Account)

Pre-condition: The account exists and the member is logged in.

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User chooses to delete the account and submits the action by clicking the button 'Delete Account'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User confirms the action by clicking the button 'OK'. | System deletes the account and saves the changes. | Works |

Test Case: Deleting the account as a Member and not approving the action (Manage Member's Account)

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User chooses to delete the account and submits the action by clicking the button 'Delete Account'. | System displays a message and waits for the user's confirmation. | Works |
| 2 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without removing the account. | Works |

6. Administrate Recipes

Test Case: Adding a recipe as Administrator with correct data(Administrate Recipes)

Pre-condition: The administrator is logged in.

| Step | Action | Reaction | Result |
|------|--|---|--------|
| 1 | User enters the title 'Test5Recipe', the ingredients 'test5ingredient1', 'test5ingredient2' with their amounts 'test5amount1', 'test5amount2' and a description of a recipe 'test5description' and approves the data entered by clicking the button 'Add'. | System validates data, adds a new recipe with the given data to the list of recipes and displays an approval message. System saves the changes. | Works |

Test Case: Adding a recipe as the Administrator with empty data (Administrate Recipes)

Pre-condition: The administrator is logged in.

| Step | Action | Reaction | Result |
|------|---|---|--------|
| 1 | User does not fill in the fields for title, ingredients with amounts and/or description and approves the data entered by clicking the button 'Add'. | A message is displayed, the process is cancelled and the recipe is not saved in the system. | Works |

Test Case: Editing a recipe as Administrator with correct data and approving the action (Administrate Recipes)

Pre-condition: The Administrator is logged in. System displays a list with all the recipes and contains a previously added recipe with the title 'Test5Recipe', the ingredients 'test5ingredient1', 'test5ingredient2' and the description 'test5description'.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User selects the recipe 'Test5Recipe' from the list. | System shows the recipe's details (title 'Test5Recipe', ingredients 'test5ingredient1' and 'test5ingredient2' and description 'test5description'). | Works |
| 2 | User enters a new title 'Test6Recipe'/ new ingredients 'test6ingredient'/ new description 'test6description' and approves the data entered by clicking the button 'Edit'. | System displays a message and waits for user confirmation. | Works |
| 3 | User confirms the action by clicking the button 'OK'. | System validates the data entered. System displays the approval message. System saves the changes. | Work |

Test Case: Editing a recipe as Administrator with correct data and not approving the action (Administrate Recipes)

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User selects the recipe 'Test5Recipe' from the list. | System shows the recipe's details (title 'Test5Recipe', ingredients 'test5ingredient1' and | Works |

| | | 'test5ingredient2' and description 'test5description'). | |
|---|---|--|-------|
| 2 | User enters a new title 'Test5Recipe'/ new ingredients 'test5ingredient'/ new description 'test5description' and approves the data entered by clicking the button 'Edit'. | System displays a message and waits for user confirmation. | Works |
| 3 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without editing the recipe. | Work |

Test Case: Editing a recipe with empty data as Administrator and approving the action (Administrate Recipes)

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User selects the recipe with the title 'Test5Recipe' from the list. | System shows the recipe's details (title 'Test5Recipe', ingredients 'test5ingredient1' and 'test5ingredient2' and description 'test5description'). | Works |
| 2 | User approves the new data entered without filling in the fields for title, ingredients with amounts and/or description by clicking the button 'Edit'. | System displays a message and waits for user confirmation | Works |

| 3 | User confirms the action by | A message is displayed, the | Work |
|---|-----------------------------|------------------------------------|------|
| | clicking the button 'OK'. | process is cancelled and the | |
| | | recipe is not saved in the system. | |

Test Case: Editing a recipe with empty data as Administrator and not approving the action (Administrate Recipes)

| Step | Action | Reaction | Result |
|------|--|--|--------|
| 1 | User selects the recipe with the title 'Test5Recipe' from the list. | System shows the recipe's details (title 'Test5Recipe', ingredients 'test5ingredient1' and 'test5ingredient2' and description 'test5description'). | Works |
| 2 | User approves the new data entered without filling in the fields for title, ingredients with amounts and/or description by clicking the button 'Edit'. | System displays a message and waits for user confirmation | Works |
| 3 | User does not confirm the action by clicking the button 'Cancel'. | System ends the action without editing the recipe. | Work |

Test Case: Removing a recipe as Administrator and approving the action (Administrate Recipes)

Pre-condition: The Administrator is logged in. System displays a list with all the recipes and a previously added recipe with the title 'Test5Recipe', the ingredients 'test5ingredient1', 'test5ingredient2' and the description 'test5description' exists in the system.

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User selects the recipe with the title 'Test5Recipe' from the list. | System shows the recipe's details (title 'Test5Recipe', ingredients 'test5ingredient1' and 'test5ingredient2' and description 'test5description'). | Works |
| 2 | User chooses to remove the recipe by clicking the button 'Remove'. | System displays a message and waits for user confirmation | Works |
| 3 | User confirms the action by clicking the button 'OK'. | System removes the recipe from the list and displays the approval message. System saves the changes. | Work |

Test Case: Removing a recipe as Administrator and not approving the action (Administrate Recipes)

| Step | Action | Reaction | Result |
|------|---|--|--------|
| 1 | User selects the recipe with the title 'Test5Recipe' from the list. | System shows the recipe's details (title 'Test5Recipe', ingredients 'test5ingredient1' and | Works |

| | | 'test5ingredient2' and description 'test5description'). | |
|---|--|---|-------|
| 2 | User chooses to remove the recipe by clicking the button 'Remove'. | System displays a message and waits for user confirmation | Works |
| 3 | User does not confirm the action 'Cancel'. | System ends the action without editing the recipe. | Work |

7. Administrate Accounts

Test Case: Deleting the account of a member as the Administrator and approving the action (Administrate Accounts)

Pre-condition: The Administrator is logged in and an account with the email the username 'test1username' exists in the system.

| Step | Action | Reaction | Result |
|------|--|---|--------|
| 1 | The administrator chooses to delete the account of the member with the username 'test1username' and submits the action by clicking the button 'Remove Membership'. | System displays a message and waits for the Administrator's confirmation. | Works |
| 2 | The administrator confirms the action by clicking the button 'OK'. | System deletes the account and saves the changes. | Works |

Test Case: Deleting the account of a member as the Administrator and not approving the action (Administrate Accounts)

Pre-condition: The account exists and the Administrator is logged in.

| Step | Action | Reaction | Result |
|------|--|---|--------|
| 1 | The administrator chooses to delete the account of the member with the username 'test1username' and submits the action by clicking the button 'Remove Membership'. | System displays a message and waits for the Administrator's confirmation. | Works |
| 2 | The administrator does not confirm the action by clicking the button 'Cancel'. | System ends the action without removing the account. | Works |