***User Requirement Specifications***



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Functional Requirements

|  |  |  |
| --- | --- | --- |
| ID | Name | Priority |
| FR01 | Actor must be able to log in their profile | M |
| FR02 | Actor must be able to create an account | M |
| FR03 | Actor must be able to create an account | M |
| FR04 | Actor must be able change their profile image | M |
| FR05 | Actor must be able to change their password | M |
| FR06 | Actor must be able to search for products | M |
| FR07 | Actor should be able to filter the products by type | M |
| FR08 | Actor must be able to create a product | M |
| FR09 | Actor must be able to add product to their fridge | M |
| FR10 | Actor should be able to search recipes | M |
| FR11 | Actor must be able to generate a recipe | C |
| FR12 | Actor must be able to delete product | C |
| FR13 | Actor must be able to delete recipe | M |

Non-Functional Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| ID | Name | Priority | |
| NFR01 | Code maintainability | | M |
| NFR02 | Performance | | C |
| NFR03 | User friendliness | | M |
| NFR04 | Scalability | | C |



Use Cases:

**UC01:** Log In to Profile

* **Reference Point:** FR01
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor opens the application and is welcomed by the log in page.
  2. Actor enters their valid credentials (username and password).
  3. System verifies the provided credentials. Confirms the login.
* **Extensions:**
  1. 3a. Invalid Credentials
     + System detects that the entered credentials are invalid (e.g., incorrect username or password).
     + System displays an error message indicating the issue.
     + Actor can choose to:
       - Try again by re-entering their credentials.
       - Click on a "Create Account" link to register a new account.
     + Return to Main Success Scenario

**UC02: Actor should be able to create an account.**

* **Use Case Name:** Create Account
* **Reference Point:** FR02
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor opens the application.
  2. Actor selects the "Create Account" option.
  3. Actor provides the required registration information (e.g., username, email, password).
  4. System validates the information and creates the account.
* **Extensions:**
  1. 4a. Invalid Information
     + System detects invalid information (e.g., duplicate username or invalid email format).
     + System displays an error message.
     + Return to Main Success Scenario

**UC03: Actor should be able to change their credentials.**

* **Use Case Name:** Change Credentials
* **Reference Point:** FR03
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor logs into their account.
  2. Actor navigates to the "Account Settings" or "Profile" section.
  3. Actor selects the option to change their credentials (e.g., username or email).
  4. Actor provides the new information.
  5. System validates and updates the credentials.
* **Extensions:**
  1. 5a. Invalid Information
     + System detects invalid information (e.g., duplicate username or invalid email format).
     + System displays an error message.
     + Return to Main Success Scenario

**UC04: Actor must be able to change their profile image**

* **Use Case Name:** Change Profile Image
* **Reference Point:** FR04
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor logs into their account.
  2. Actor navigates to the "Profile" section.
  3. Actor selects the option to change their profile image.
  4. Actor uploads a new profile image.
  5. System validates and updates the profile image.
* **Extensions:**
  1. 5a. Invalid Image
     + System detects an invalid or unsupported image format.
     + System displays an error message.
     + Return to Main Success Scenario

**UC05: Actor should be able to change their password.**

* **Use Case Name:** Change Password
* **Reference Point:** FR05
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor logs into their account.
  2. Actor navigates to the "Account Settings" or "Security" section.
  3. Actor selects the option to change their password.
  4. Actor provides the current password and a new password.
  5. System validates the information and updates the password.
  6. Actor receives a confirmation message.
* **Extensions:**
  1. 5a. Incorrect Current Password
     + System detects that the provided current password is incorrect.
     + System displays an error message.
     + Return to Main Success Scenario



**UC05: Actor should be able to change their password**

* **Use Case Name:** Change Password
* **Reference Point:** FR05
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor logs into their account.
  2. Actor navigates to the "Account Settings" or "Security" section.
  3. Actor selects the option to change their password.
  4. Actor provides the current password and a new password.
  5. System validates the information and updates the password and receives confirmation message.
* **Extensions:**
  1. 5a. Incorrect Current Password
     + System detects that the provided current password is incorrect.
     + System displays an error message.
     + Return to Main Success Scenario

**UC06: Actor should be able to search for products.**

* **Use Case Name:** Search for Products
* **Reference Point:** FR06
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor opens the application.
  2. Actor navigates to the "Search" or "Products" section.
  3. Actor enters search criteria (e.g., product name or keyword).
  4. System retrieves and displays relevant products based on the search.
* **Extensions:**
  1. 4a. No Results Found
     + If the search returns no results, the system displays a message indicating no products match the criteria.
     + Return to Main Success Scenario

**UC07: Actor should be able to filter the products by type**

* **Use Case Name:** Filter Products by Type
* **Reference Point:** FR07
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor is on the products page.
  2. Actor selects the "Filter" option.
  3. Actor chooses a specific product type or category to filter by.
  4. System applies the selected filter.
  5. The product list is updated to display only products of the selected type.
* **Extensions:**
  1. 3a. No Products in the Chosen Type
     + If there are no products of the selected type, the system notifies the user.
     + Return to Main Success Scenario

**UC08: Actor must be able to create a product.**

* **Use Case Name:** Create Product
* **Reference Point:** FR08
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor is logged into their account.
  2. Actor navigates to the "Product Management" or "Create Product" section.
  3. Actor provides product details (e.g., name, description, type).
  4. Actor submits the product information.
  5. System validates and creates the new product.
  6. Actor receives a confirmation message.
* **Extensions:**
  1. 3a. Missing Information
     + If any required product details are missing, the system displays an error message.
     + Return to Main Success Scenario

**UC09: Actor must be able to add a product to their fridge.**

* **Use Case Name:** Add Product to Fridge
* **Reference Point:** FR09
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor is logged into their account.
  2. Actor navigates to their "Fridge" or "Inventory" section.
  3. Actor selects the option to add a product.
  4. Actor chooses a product from the available list or enters product details.
  5. System adds the selected product to the user's fridge.
* **Extensions:**
  1. 4a. Product Already in Fridge
     + If the selected product is already in the user's fridge, the system notifies the user.
     + Return to Main Success Scenario

**UC010: Actor should be able to search for recipes.**

* **Use Case Name:** Search for Recipes
* **Reference Point:** FR10
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor opens the application.
  2. Actor navigates to the "Recipes" or "Cooking" section.
  3. Actor enters search criteria (e.g., recipe name, ingredients).
  4. System retrieves and displays relevant recipes based on the search.
* **Extensions:**
  1. 3a. No Results Found
     + If the search returns no results, the system displays a message indicating no recipes match the criteria.
     + Return to Main Success Scenario



**UC11: Actor must be able to generate a recipe.**

* **Use Case Name:** Generate Recipe
* **Reference Point:** FR11
* **Actor:** User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor is in the "Recipes" or "Cooking" section.
  2. Actor selects the option to generate a recipe.
  3. Actor provides information about available ingredients or dietary preferences.
  4. System generates a recipe suggestion based on the provided information.
  5. Actor can view the generated recipe and cooking instructions.
* **Extensions:**
  1. 3a. No Recipe Generated
     + If the system cannot generate a recipe based on the provided information, it notifies the user and suggests adjusting the criteria.
     + Return to Main Success Scenario

**UC12: Delete Product**

* **Reference Point:** FR12
* **Actor:** Admin/Authorized User
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor navigates to the product management section of the application.
  2. Actor selects the product they want to delete.
  3. System prompts the actor to confirm the deletion.
  4. Actor confirms the deletion.
  5. System removes the selected product from the database.
* **Extensions:**
  1. 3a. Unauthorized Access
     + System detects that the actor does not have the necessary permissions to delete products.
     + System displays an error message indicating insufficient privileges.
     + Return to Main Success Scenario
     + End of Use Case.
  2. 4a. Cancel Deletion
     + Actor chooses to cancel the deletion.
     + System aborts the deletion process and returns to the product management screen.
     + End of Use Case.

**UC13: Delete Recipe**

* **Reference Point:** FR13
* **Actor:** Admin
* **Priority (MOSCOW):** M
* **Main Scenario:**
  1. Actor navigates to the recipe management section of the application.
  2. Actor selects the recipe they want to delete.
  3. System prompts the actor to confirm the deletion.
  4. Actor confirms the deletion.
  5. System removes the selected recipe from the database.
* **Extensions:**
  1. 3a. Unauthorized Access
     + System detects that the actor does not have the necessary permissions to delete recipes.
     + System displays an error message indicating insufficient privileges.
     + Actor is redirected to the home screen or an appropriate landing page.
     + End of Use Case.
  2. 4a. Cancel Deletion
     + Actor chooses to cancel the deletion.
     + System aborts the deletion process and returns to the recipe management screen.
     + End of Use Case.