

System and Unit Test Report

Nutrient+

Nutrient+ Team

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Testing Approach

Our testing approach mainly consisted of manual testing methods. We used a combination of paired programming, peer code reviews, and print statements to test the various components of our system.

System Testing Scenarios

- Sprint 1:
 - User Story 1: As a user, I want to be able to visualize my daily intake progress so that I can practice healthier eating habits.
 - Scenario for User Story 1:
 - 1. start Nutrient+ app
 - 2. Enter user information
 - Height = 70 in
 - Weight = 200 lbs
 - Body Fat % = 20
 - Sex = Male
 - Birthday = Jan 1, 2000
 - 3. Press 'Done'
 - 4. Main page shows daily intake progress per nutrient
- Sprint 2:
 - No user stories were fully completed in Sprint 2.
- Sprint 3:
 - User Story 1: As a user, I want to create and update a user profile so the app can tailor the intake information to my needs.

- Scenario for User Story 1:
 - 1. start Nutrient+ app
 - 2. Note current targets
 - ex) Energy = 3374.0
 - 4. Press 'Edit Profile'
 - 5. Edit new information
 - Height = 60 in
 - Weight = 100 lbs
 - Body Fat % = 25
 - Sex = Female
 - Birthday = Jan 1, 1980
 - 6. Press 'Done'
 - 7. Recalculated targets are shown on main page
 - ex) Energy = 1518.6
- User Story 2: As a user, I want to keep track of my current daily intake so that I know what nutrients I still need for the day.
- Scenario for User Story 2:
 - Tested along with Sprint 4 User Story 1, 2, and 3
 - 1. From the main page, press 'Add Food'
 - 2. Enter name of food
 - name = <Spinach>
 - Number of Servings = 1.5
 - Press 'OK'
 - 3. Main page shows updated nutrient progress
 - Energy = 30.6 / 3374.0
 - Protein = 3.0 / 72.6
- User Story 3: As a user, I want to adjust the predetermined daily nutrient goals so that I can create my own goals.
- User Story 4: As a developer, I want a function that reloads some data each time the page loads so that a new food can be recommended.
- Scenario for User Stories 3 & 4:
 - 1. From the main page, press 'Edit Target'
 - 2. Edit desired nutrient targets
 - Energy = 2000

- 3. Press 'Done'
 - 4. Main page shows updated nutrient targets which has reloaded data
 - Energy = 30.6 / 2000.0
- User Story 7: As a user, I need a clean and straightforward UI to view the recommendations.
- Scenario for User Story 7:
 - 1. From the main page, recommended food is shown at the top of the screen
- Sprint 4:
 - User Story 1: As a developer, I want a weighted value of the importance of a specific macro or micro so I know which to prioritize when recommending food.
 - User Story 2: As a developer, I want a local database so that the user's nutritional data persists.
 - User Story 3: As a user, I want the amount of food I ate to be editable so I can input more/less than one serving at a time.
 - User Story 4: As a developer, I need the database information to be used in all places where we implemented nonpersisting data.
 - Scenario for User Stories 1, 2, 3, & 4:
 - 1. From the main page, press 'Add Food'
 - 2. Enter name of food
 - name = <Spinach>
 - 3. Select SPINACH - Weis Markets, Inc.
 - Number of Servings = 1.5
 - Press 'OK'
 - 4. Main page shows updated nutrient progress
 - Energy = 31.0 / 1519.0
 - Protein = 3.0 / 36.0
 - New recommendation is calculated using weights for each nutrient
 - Nutrient progress is stored in a local SQLite database

- User Story 5: As a user, I want to edit my personal information so that I can change my profile.
- Scenario for User Story 5:
 - 1. start Nutrient+ app
 - 2. Press 'Edit Profile'
 - 3. Enter new information
 - Height = 60 in
 - Weight = 100 lbs
 - Body Fat % = 25
 - Sex = Female
 - Birthday = Jan 1, 1980
 - 6. Press 'Done'
 - 7. Recalculated targets are shown on main page
 - Energy = 31.0 / 1519.0
 - Protein = 3.0 / 36.0

Unit Tests

- Reference 'Testing' file in repository.