Black Bear Calorie Counter Test Plan

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Unit testing

Username (valid)
A well-formed e-mail address (1)

Username (invalid)
A malformed e-mail address (2)

Password (valid)
Length ≥ 8 characters (1)
At least 1 letter (2)
At least 1 number (3)
At least 1 special character (4)

Password (invalid)
Length < 8 characters (5)
No letters (6)
No numbers (7)
No special character (8)

Age (valid)
16 ≤ age ≤ 120 (1)

Age (invalid)
Age < 16 (2)
Age > 120 (3)

Weight (valid)
50 lbs ≤ weight ≤ 1000 lbs (1)

Weight (invalid)
Weight < 50 lbs (2)
Weight > 1000 lbs (3)

Height, foot portion (valid)
Height is an integer
2 ft ≤ height ≤ 10 ft (1)

Height, foot portion (invalid)
Height is a decimal value
Height < 2 ft (2)
Height > 10 ft (3)

Height, inch portion (valid)
0 inches ≤ height < 12 inches (1)

Height, inch portion (invalid)
Height < 0 inches (2)
Height ≥ 12 inches (3)

Gender (valid)
"Male" checked (1)
"Female" checked (2)

Gender (invalid)
"Male" and "female" checked (3)
Neither "male" nor "female" checked (4)

Activity level (valid)

Activity level (invalid)

"Inactive" checked (1)   No activity level checked (5)
"Light activity" checked (2)   Multiple activity levels checked (6)
"Moderate activity" checked (3)
"Heavy activity" checked (4)

Weight goal (valid)   **Weight goal (invalid)**
"Lose Weight" checked (1)   No goal checked (4)
"Maintain Weight" checked (2)   Multiple goals checked (5)
"Gain Weight" checked (3)

Use case testing

Title: Set a custom weight loss goal.
Actors: User
Requirements: REQ-5, REQ-6
Main Scenario:
1: User logs in.
2: User selects "Calories" tab.
3: User inputs age.
4: User inputs weight.
5: User inputs foot portion of height.
6: User inputs inch portion of height.
7: User selects gender.
8: User selects activity level.
9: User selects "Lose Weight" radio button.
10: User presses "Calculate" button.
11: A daily calorie intake goal is presented to the user.

Alternatives:
1a: The user does not enter a valid e-mail address as a username.
1a1: User does not log in.
1a2: User is presented with an error message in the username field.
1a3: User is presented with a pop-up message saying username is invalid.
1b: The user does not enter a valid password.
1b1: User does not log in.
1b2: User is presented with an error message in the password field.
1b3: User is presented with a pop-up message saying password is invalid.
3a: User inputs an invalid age.
3a1: Calorie intake goal is not presented to the user.
3a2: User is presented with an error message in the age field.

3a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
4a: User inputs an invalid weight.
4a1: Calorie intake goal is not presented to the user.
4a2: User is presented with an error message in the weight field.
4a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
5a: User inputs an invalid feet portion of their height.
5a1: Calorie intake goal is not presented to the user.
5a2: User is presented with an error message in the feet field.
5a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
6a: User inputs an invalid inch portion of their height.
6a1: Calorie intake goal is not presented to the user.
6a2: User is presented with an error message in the inch field.
6a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
7a: User inputs an invalid gender.
7a1: Calorie intake goal is not presented to the user.
7a2: User is presented with an error message in the gender field.
7a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
8a: User inputs an invalid activity level.
8a1: Calorie intake goal is not presented to the user.
8a2: User is presented with an error message in the activity-level field.
8a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
9a: User inputs an invalid weight goal.
9a1: Calorie intake goal is not presented to the user.
9a2: User is presented with an error message in the weight-goal field.
9a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
9b: User inputs a goal other than "Lose Weight".
9b1: Inaccurate calorie intake information is presented to the user.
10a: User does not press "Calculate" button.
10a1: Calorie intake goal is not presented to the user.

Test Situations:
1) User sets a custom weight-loss goal successfully.
2) User does not enter a valid e-mail address as a username.
3) User does not enter a valid password
3) User inputs an invalid age.
4) User inputs an invalid weight.
5) User inputs an invalid feet portion of their height.
6) User inputs an invalid inch portion of their height.
7) User inputs an invalid gender.
8) User inputs an invalid activity level.
9) User inputs an invalid weight goal.
10) User inputs a goal other than "Lose Weight".
11) User does not press "Calculate" button.

Test Coverage:
Base: number of main and alternative scenarios: 11
Test situations cover all 11 cases
100% coverage of use case

Title: Set a custom weight maintenance goal.
Actors: User
Requirements: REQ-5, REQ-6
Main Scenario:
1: User logs in.
2: User selects "Calories" tab.
3: User inputs age.
4: User inputs weight.
5: User inputs foot portion of height.
6: User inputs inch portion of height.
7: User selects gender.
8: User selects activity level.
9: User selects "Maintain Weight" radio button.
10: User presses "Calculate" button.
11: A daily calorie intake goal is presented to the user.

Alternatives:
1a: The user does not enter a valid e-mail address as a username.
1a1: User does not log in.
1a2: User is presented with an error message in the username field.
1a3: User is presented with a pop-up message saying username is invalid.
1b: The user does not enter a valid password.
1b1: User does not log in.
1b2: User is presented with an error message in the password field.
1b3: User is presented with a pop-up message saying password is invalid.
3a: User inputs an invalid age.
3a1: Calorie intake goal is not presented to the user.
3a2: User is presented with an error message in the age field.
3a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
4a: User inputs an invalid weight.
4a1: Calorie intake goal is not presented to the user.
4a2: User is presented with an error message in the weight field.
4a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
5a: User inputs an invalid feet portion of their height.

5a1: Calorie intake goal is not presented to the user.
5a2: User is presented with an error message in the feet field.
5a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
6a: User inputs an invalid inch portion of their height.
6a1: Calorie intake goal is not presented to the user.
6a2: User is presented with an error message in the inch field.
6a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
7a: User inputs an invalid gender.
7a1: Calorie intake goal is not presented to the user.
7a2: User is presented with an error message in the gender field.
7a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
8a: User inputs an invalid activity level.
8a1: Calorie intake goal is not presented to the user.
8a2: User is presented with an error message in the activity-level field.
8a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
9a: User inputs an invalid weight goal.
9a1: Calorie intake goal is not presented to the user.
9a2: User is presented with an error message in the weight-goal field.
9a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
9b: User inputs a goal other than "Maintain Weight".
9b1: Inaccurate calorie intake information is presented to the user.
10a: User does not press "Calculate" button.
10a1: Calorie intake goal is not presented to the user.

Test Situations:
1) User sets a custom weight maintenance goal successfully.
2) User does not enter a valid e-mail address as a username.
3) User does not enter a valid password
3) User inputs an invalid age.
4) User inputs an invalid weight.
5) User inputs an invalid feet portion of their height.
6) User inputs an invalid inch portion of their height.
7) User inputs an invalid gender.
8) User inputs an invalid activity level.
9) User inputs an invalid weight goal.
10) User inputs a goal other than "Maintain Weight".
11) User does not press "Calculate" button.

Test Coverage:
Base: number of main and alternative scenarios: 11
Test situations cover all 11 cases
100% coverage of use case

Title: Set a custom weight gain goal.
Actors: User
Requirements: REQ-5, REQ-6
Main Scenario:
1: User logs in.
2: User selects "Calories" tab.
3: User inputs age.
4: User inputs weight.
5: User inputs foot portion of height.
6: User inputs inch portion of height.
7: User selects gender.
8: User selects activity level.
9: User selects "Gain Weight" radio button.
10: User presses "Calculate" button.
11: A daily calorie intake goal is presented to the user.

Alternatives:
1a: The user does not enter a valid e-mail address as a username.
1a1: User does not log in.
1a2: User is presented with an error message in the username field.
1a3: User is presented with a pop-up message saying username is invalid.
1b: The user does not enter a valid password.
1b1: User does not log in.
1b2: User is presented with an error message in the password field.
1b3: User is presented with a pop-up message saying password is invalid.
3a: User inputs an invalid age.
3a1: Calorie intake goal is not presented to the user.
3a2: User is presented with an error message in the age field.
3a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
4a: User inputs an invalid weight.
4a1: Calorie intake goal is not presented to the user.
4a2: User is presented with an error message in the weight field.
4a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
5a: User inputs an invalid feet portion of their height.
5a1: Calorie intake goal is not presented to the user.
5a2: User is presented with an error message in the feet field.
5a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
6a: User inputs an invalid inch portion of their height.
6a1: Calorie intake goal is not presented to the user.
6a2: User is presented with an error message in the inch field.
6a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
7a: User inputs an invalid gender.
7a1: Calorie intake goal is not presented to the user.
7a2: User is presented with an error message in the gender field.

7a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
8a: User inputs an invalid activity level.
8a1: Calorie intake goal is not presented to the user.
8a2: User is presented with an error message in the activity-level field.
8a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
9a: User inputs an invalid weight goal.
9a1: Calorie intake goal is not presented to the user.
9a2: User is presented with an error message in the weight-goal field.
9a3: User is presented with a pop-up message saying calorie intake goal cannot be calculated.
9b: User inputs a goal other than "Gain Weight".
9b1: Inaccurate calorie intake information is presented to the user.
10a: User does not press "Calculate" button.
10a1: Calorie intake goal is not presented to the user.

Test Situations:
1) User sets a custom weight-gain goal successfully.
2) User does not enter a valid e-mail address as a username.
3) User does not enter a valid password
3) User inputs an invalid age.
4) User inputs an invalid weight.
5) User inputs an invalid feet portion of their height.
6) User inputs an invalid inch portion of their height.
7) User inputs an invalid gender.
8) User inputs an invalid activity level.
9) User inputs an invalid weight goal.
10) User inputs a goal other than "Gain Weight".
11) User does not press "Calculate" button.

Test Coverage:
Base: number of main and alternative scenarios: 11
Test situations cover all 11 cases
100% coverage of use case

Acceptance testing

Priority	Description	Result
HIGH	Users should be able to enter food into Black Bear Calorie Counter by searching for brand names or keywords, e.g., "bananas" or "Pepsi."	Fail.
Rationale: We did not implement this ability in the codebase.		

Priority	Description	Result
HIGH	Users should be able to view the calories and macronutrients that they have consumed for the day	Fail.
Rationale: We did not implement this ability in the codebase.		

Priority	Description	Result
MEDIUM	Users should be able to enter food into Black Bear Calorie Counter by scanning the product's Universal Product Code (UPC) with the phone's camera.	Fail.
Rationale: We did not implement this ability in the codebase.		

Priority	Description	Result
MEDIUM	Users should be able to select portion sizes in units of one gram or one ounce to facilitate use of a food scale.	Fail.
Rationale: We did not implement this ability in the codebase.		

Priority	Description	Result
LOW	Users should be able to see historical caloric and macronutrient intake.	Fail.
Rationale: We did not implement this ability in the codebase.		