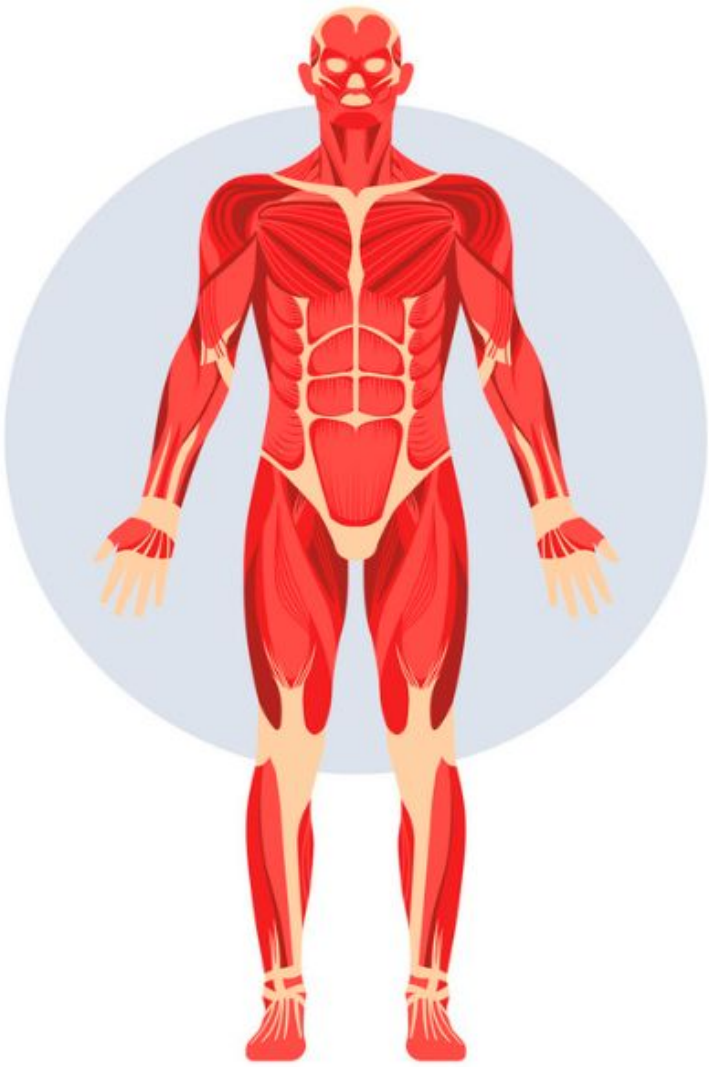

Testing: Bite Body

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Table of Contents

Abstract

This document will outline the various test cases used to verify the integrity of our fitness application BiteBody. Five levels of testing will be reviewed and discussed: Unit, Module, Integration, System, Acceptance Testing. The tests given will check various situations that the user or system may encounter to confirm that the product meets the various requirements outlined in the requirements specification. Six categories will be defined for each test including:

1. **Test Level:** The testing level being tested
2. **Quality Criterion/Attribute:** The quality characteristic that was focused for this Test Case Description of Test: A brief description of what the Test should include
3. **Description of Test:** An explanation of the feature that is being tested.
4. **Requirements Reference:** A reference to what Use Case will be used for the current Test Case
5. **Steps of the Test Case:** A step-by-step layout of the process to test the given Test Case
6. **Expected Outcome:** The expected outcome of the Test once the steps have completed

Unit Level

Unit Testing refers to the individual parts of the software that can be tested for their effectiveness with other unit components. Various units are within the software and work together to ensure that the software runs in an appropriate manner.

User Profile: Pick a body part (Usability)

Test level	Unit
Quality Criterion	Usability
Description of Test	Users create a workout on their user profile by selecting a body part from an interactive UI
Requirement Reference	(Use case #3) UI selection (Use case #5) Create a workout
Steps of the Test Case	1. Navigate to user profile 2. Click on create a workout 3. Use UI selection to pick a body part 4. Confirm workouts being prompted
Expected Outcome	User will receive results of a full workout routine to perform

Create a Meal Plan(Usability)

Test level	Unit
Quality Criterion	Usability
Description of Test	Creates a meal plan based on filtered preferences for workout goals
Requirement Reference	(Use case #12) Meal Planner (Use case #14) Macro Counter (Use case #15) Food Logger
Steps of the Test Case	1. Navigate to features 2. Click on create a meal plan 3. Enter the criteria for diet 4. Confirm the meals selected 5. Add meals to calendar

Expected Outcome	User will have a meal plan based on the filter preferences defined by the user

User Profile: Workout Search Engine (Functionality)

Test level	Unit
Quality Criterion	Functionality
Description of Test	User is able to search for workouts based on keyword searched for
Requirement Reference	(Use Case #11) Workout search engine
Steps of the Test Case	1. Navigate to user profile 2. Click on search for workouts 3. Fill in filtering information if required 4. Enter keywords to search for results
Expected Outcome	User receives a list of possible workouts based on the keywords they entered

User Profile: Follow friends accounts (Usability)

Test level	Unit
Quality Criterion	Usability
Description of Test	User clicks follow a friend's account to view their workouts and fitness goals
Requirement Reference	(Use Case #7) Follow friends accounts to see workouts that they're doing.
Steps of the Test Case	1. Navigate to user profile 2. View friends list 3. Click follow
Expected Outcome	Notifications will be received about friends workout goals,workouts,and meal plan (if user chooses to share)

Module Level

Module Testing refers to the combination of Units and how well the Units work as a whole. For BiteBody, this refers to our seamless navigation of the webpage and the various components that make up the modules.

Contributor Search Page (Efficiency)

Test level	Module
Quality Criterion	Efficiency
Description of Test	User accesses search page on the Home page, then searches for specified items
Requirement Reference	(Use Case #7) Follow friends
Steps of the Test Case	1. Navigate to the contributor search page of the website 2. User fills out search criteria 3. User views contributors based on search criteria given 4. User views a list of contributors 5. User selects a contributor's page to use/follow
Expected Outcome	User is presented with a contributor suited to their fitness goals. They are also given the option to follow said user.

User Profile (Functionality)

Test level	Module
Quality Criterion	Functionality
Description of Test	User creates an account and logs into view their Home page
Requirement Reference	(Use Case #4) User Profile creation
Steps of the Test Case	1. Navigate to the sign-up page 2. User fills out profile information 3. User confirms information is accurate 4. User logs into server with credentials 5. User views Home page
Expected Outcome	User creates an account and is able to log into the server

Keep Track of your Fitness Goals (Usability)

Test level	Module
Quality Criterion	Usability
Description of Test	User access search page on the Home page, then searches for specified items
Requirement Reference	(Use Case #8) Keep Track of your Fitness Goals
Steps of the Test Case	1. User is logged in 2. Navigate to user profile 3. Select fitness goals 4. User is prompted by the system to enter goals if none have been set 5. User can view goals
Expected Outcome	Fitness goals can be easily viewed with proper results

Integration Level

Integration Testing refers to how well the system's code corresponds and integrates with outside sources such as API's, Email Servers, Browsers, and etc. Ensuring that data sent through outside sources is properly represented creates a proper environment for the user across many platforms.

Edamam API (Functionality)

Test level	Integration
Quality Criterion	Functionality
Description of Test	Check that the system's data is accurately displaying meal plans with the Edamam recipe API
Requirement Reference	(Use Case #12) Meal Planner (Use Case #15) Food Logger
Steps of the Test Case	1. Navigate to Meal Plan page of website 2. User enters information relating to their weight goals along with their current physical appearance 3. User can check the calendar to see if their meal plan has been added
Expected Outcome	User is given a meal plan based off their information.

Two-Factor Authentication (Reliability)

Test level	Integration
Quality Criterion	Reliability
Description of Test	Check that the current user signing in is associated with the account created on the website
Requirement Reference	(Use Case #1) Login (Use Case #2) Forgot Password
Steps of the Test Case	1. Navigate to the login page 2. User enters their credentials 3. User receives either an email or a text message to confirm their identity
Expected Outcome	User is given access to their account.

Device Compatibility (Portability)

Test level	Integration
Quality Criterion	Portability
Description of Test	Check that the site and all its functions can run on various systems
Requirement Reference	(Use Case #1) Login (Use Case #4) User Profile (Use Case #5) Create Workout routines (Use Case #12) Meal Planner
Steps of the Test Case	1. Open the site on various systems and/or browsers 2. Enter the site name (bitebody.io) 3. Validate the site is accessible 4. Verify features are functioning correctly a. Check all pages
Expected Outcome	The site can be reachable and is user friendly from each system that the user attempts to use it from.

MySQL (Efficiency)

Test level	Integration
Quality Criterion	Efficiency
Description of Test	Verify that the database is working correctly and efficiently
Requirement Reference	(Use Case #1) Login (Use Case #2) Forgot Password (Use Case #4) User Profile
Steps of the Test Case	1. Navigate to the sign-up page 2. Create a User account 3. Reference MySQL database to verify the user is added to the user table 4. Navigate to complete profile information 5. Fill out profile information 6. Reference MySQL database to verify user information is added to a table
Expected Outcome	MySQL is successful in saving the information being inputted on the site efficiently and correctly.

System Level

System Testing refers to how the System itself runs with the various tests and situations that may arise when using the website. This includes server requests, maintenance, ease of use for the User.

Multiple Server Requests (Reliability)

Test level	System
Quality Criterion	Reliability
Description of Test	Have multiple users send requests from different locations to stress test server
Requirement Reference	(Use Case #1) Login (Use Case #5) Create Workout Routines (Use Case #12) Meal Planner
Steps of the Test Case	1. Make multiple login request to server 2. Make multiples workout creation request 3. Make multiple meal plan creation request 4. Create multiple accounts
Expected Outcome	All requests are handled without website crashing with little to no lag

Ease of Use (Usability)

Test level	System
Quality Criterion	Usability
Description of Test	Verify that the system is easily usable by users of all ages and technological experience
Requirement Reference	(Use Case #1) Login (Use Case #5) Create Workout Routines (Use case #12) Meal Planner
Steps of the Test Case	1. User is logged into their account 2. Navigate to features dropdown menu 3. User can access links from the landing page a. Search contributor b. Meal Planner c. Create a workout routine d. Search workouts 4. Logout from site

Expected Outcome	Application should be easy to use and available at all times

Database (Functional)

Test level	System
Quality Criterion	Functionality
Description of Test	Have multiple users send request to stress test server
Requirement Reference	(Use Case #4) User Profile (Use Case #5) Create Workout (Use Case #11) Workout search engine
Steps of the Test Case	1. Use web interface to add information to profile 2. Check database for added information 3. Use web interface to create a workout 4. Check to see if that workout exists for the user 5. Shut system down 6. Check database for any changes made
Expected Outcome	The database can maintain data even if server goes down,so when it server function returns database information can be utilized

Acceptance Level

Acceptance Testing refers to the ability of the software to effectively respond to the user's input to the website. This can vary with all operations of BiteBody including: Creating a workout, creating a meal plan, creating an account, and logging into the created account.

Login (Satisfaction)

Test level	Acceptance
Quality Criterion	Satisfaction
Description of Test	User logs into account after creating an account
Requirement Reference	(Use Case #1) Login (Use Case #4) User Profile
Steps of the Test Case	1. Navigate to the BiteBody home page 2. Enter credentials 3. System verifies the user login credentials exist in database 4. System sends request to server 5. User logs into server 6. User fills out profile information
Expected Outcome	User can log into their account, access their profile, and adjust it according to their goals.

Create Account (Security)

Test level	Acceptance
Quality Criterion	Security
Description of Test	User creates an account that has verified information that is not a duplicate of another account or a security risk to themselves or the database
Requirement Reference	(Use Case #4) User Profile

Steps of the Test Case	1. Navigate to Bite Body home page 2. User selects login/create account 3. User fills out the provided fields 4. System confirms there are no duplicate users 5. System sends confirmation email to user 6. User checks email and confirms 7. User has successfully created an account
Expected Outcome	User account is successfully made without security risk.