Verification Test Plan

Unit Testing

Target Component: Individual functions and methods in the design specification.

* Test Set 1A: User Authentication
  + Test 1A.1: Create a new user account and verify the account is created successfully.
    - Test Case:

Input: Username: JuanMatias808 Password: ILoveCoding808!

Expected: Account Creation Successful!

* + Test 1A.2: Login with valid credentials and verify successful login.
    - Test Case:

Input: Username: JuanMatias808, Password: ILoveCoding808!

Expected: Welcome back Juan!

* + Test 1A.3: Logout and verify successful logout.
    - Test Case:

Input: Click Logout

Expected: User successfully logged out!

* Test Set 2A: Bubble Display and Interaction
  + Test 2A.1: Verify that "bubbles" are displayed correctly to users.
    - Test Case:

Input: Message: I love Bobble!

Expected: I love Bobble!

* + Test 2A.2: Verify that users can click into a "bubble" to see posts and related "bubbles."
    - Test Case:

Input: Click on a bubble named “Workout tips”

Expected: Display posts related to workout tips inside the bubble “Workout Tips” posts can be related to strength training, marathon training, form correction, hypertrophy training tips etc.

* + Test 2A.3: Verify that users are unable to see bubbles that have been hidden/deleted by admin
    - Test Case:

Input: Search for a bubble named “Illegal Tips”

Expected: No bubbles should appear.

* + Test 2A.4: Verify that registered users can join a "bubble" to see posts and related "bubbles" on their feed after they join
    - Test Case:

Input: Click on a bubble named “Workout tips”, and click “Join bubble”

Expected: Display posts related to workout tips inside the bubble “Workout Tips.” These posts will now appear in the feed of the registered user, and the algorithm will show similar bubbles on the feed

* + Test 2A.4: Verify that unregistered users cannot join a “bubble”, they may be asked to create an account if they try
    - Test Case:

Input: Click on a bubble named “Workout tips”, and click “Join bubble”

Expected: Users are offered an invitation to register or log-in to the website before being able to join the bubble.

Functional Testing

Target Component: Interactions between different units (methods and classes) within the software.

* Test Set 1B: Bubble Functionality
  + Test 1B.1: Create a new bubble and verify it appears in the list of bubbles.
    - Test Case:

Input: Create a bubble named: “Bodybuilding”

Expected: “Bodybuilding” appears in the list of bubbles.

* + Test 1B.2: Edit a bubble and verify the changes are reflected.
    - Test Case:

Input: Edit bubble named “Bodybuilding” to Strength Training”

Expected: Bubble name is changed to “Strength Training”

* + Test 1B.3: Link two bubbles and verify the link is established.
    - Test Case:

Input: Link Strength Training bubble to Bodybuilding bubble

Expected: A link between the two bubbles are created.

* Test Set 2B: Post Functionality
  + Test 2B.1: Create a new post and verify it appears in the bubble.
    - Test Case:

Input: Post: “How to train to failure and achieve muscle hypertrophy” inside the bodybuilding bubble

Expected: the post appears within the bodybuilding bubble.

* + Test 2B.2: Edit a post and verify the changes are reflected.
    - Test Case:

Input: Edit post of “How to train to failure and achieve muscle hypertrophy” and the content within it.

Expected: The post is updated containing the new information.

* + Test 2B.3: Add a response to a post and verify it appears correctly.
    - Test Case:

Input: Respond to the post “How to train to failure and achieve muscle hypertrophy” with a comment like “Wow this was very insightful, I can’t wait to apply this during my next mesocycle”

Expected: The response can be found below the post.

* + Test 2B.2: Delete a post and all their responses. Can be done by author of the post or an administrator
    - Test Case:

Input: Delete post of “How to train to failure and achieve muscle hypertrophy” and the comments posted to it.

Expected: The post is deleted and will not be shown. All comments are deleted.

System Testing

Target Component: Overall software system and interaction between various components.

* Test Set 1C: Overall System Functionality
  + Test 1C.1: Verify that a user can create a bubble, post in it, and interact with other users.
    - Test Case:

Input: Create Bodybuilding bubble, create a post on why CBum being the best classic physique Olympian, reply to comments about the post

Expected: All functions work and the system is executable.

* + Test 1C.2: Verify that a user can link their bubble with another bubble and share posts between them.
    - Test Case:

Input: Create Strength Training bubble, link the bubble to bodybuilding, create post supporting that “you can strength train and build muscle at the same time.

Expected: The post is posted in strength training and is related to bodybuilding bubble respectively.

* + Test 1C.3: Verify that users can follow other users' posts.
    - Test Case:

Input: Follow username ChicagoMarathonRunner808

Expected: You are now following, ChicagoMarathonRunner808

* Test Set 2C: User Profile and Security
  + Test 2C.1: Verify that a user can manage their profile and settings within the system.
    - Test Case:

Input: Update your profile picture and notification settings to off

Expected: Your profile picture is updated and your notifications are turned off.

* + Test 2C.2: Verify that password reset functionality works correctly.
    - Test Case:

Input: Click “Forgot Password?” and enter the email associated to the account for the verification link is sent out

Expected: User received verification link to the provided email.

* + Test 2C.3: Verify that the security plugin works correctly.
    - Test Case:

Input: 5 or more failed attempts at logging in with either a nonexistent/unmatching password and/or username,

Expected: User not allowed any log-in attempts for 1 hour.