**Test Case Document: Fitness Tracking Mobile App**

**Introduction**

This document provides test cases for the fitness tracking app. It covers functional testing, usability testing, and performance testing. The purpose of this test cases is to ensure the app meets the requirements and provides a quality user experience.

**Scope**

The testing will be performed on the fitness tracking app. The app includes the following features:

* The ability for users to log workouts, including exercises, sets, and reps.
* The ability for users to track progress over time and set goals for fitness and nutrition.
* The ability for users to connect with friends and share progress and achievements.
* The ability for users to access a library of exercises and workout plans.
* The ability for users to integrate with other fitness apps and devices.

**Test Strategy**

The following testing methods will be employed for this app:

* Functional Testing: This will be performed to ensure that the app functions as expected and meets the requirements.
* Usability Testing: This will be performed to ensure that the app is user-friendly and easy to navigate.
* Performance Testing: This will be performed to ensure that the app is responsive and does not have any performance issues.

**Test Cases**

**Functionality Test Cases**

**Test Case ID: FT001**

**Test Case Name: Log Workouts**

**Description**

Test the ability for users to log workouts, including exercises, sets, and reps.

**Pre-conditions**

* User has installed the fitness tracking mobile app.
* User is logged into their account.

**Test Steps**

1. Navigate to the "Log Workout" section of the app.
2. Select an exercise from the library.
3. Enter the number of sets and reps performed for the exercise.
4. Save the workout.

**Expected Results**

* The workout should be saved and added to the user's workout log.
* The user should be able to view the workout details, including exercises, sets, and reps performed.

**Test Data**

* Exercise: Squats
* Sets: 3
* Reps: 10

**Test Case ID: FT002**

**Test Case Name: Track Progress**

**Description**

Test the ability for users to track progress over time and set goals for fitness and nutrition.

**Pre-conditions**

* User has installed the fitness tracking mobile app.
* User is logged into their account.
* User has logged at least one workout.

**Test Steps**

1. Navigate to the "Progress" section of the app.
2. View the user's workout history and progress over time.
3. Set a fitness or nutrition goal.
4. Save the goal.

**Expected Results**

* The user should be able to view their workout history and progress over time.
* The user should be able to set and save a fitness or nutrition goal.

**Test Data**

* Goal: Increase max bench press weight by 10 lbs.

**Test Case ID: FT003**

**Test Case Name: Connect with Friends**

**Description**

Test the ability for users to connect with friends and share progress and achievements.

**Pre-conditions**

* User has installed the fitness tracking mobile app.
* User is logged into their account.
* User has added at least one friend on the app.

**Test Steps**

1. Navigate to the "Friends" section of the app.
2. View the user's list of friends.
3. Send a friend request to a new user.
4. View a friend's workout log and progress.
5. Share progress or achievements with a friend.

**Expected Results**

* The user should be able to view their list of friends and add new friends.
* The user should be able to view a friend's workout log and progress.
* The user should be able to share progress or achievements with a friend.

**Test Data**

* Friend username: Vigneshwer Gandhi

**Test Case ID: FT004**

**Test Case Name: Access Exercise Library**

**Description**

Test the ability for users to access a library of exercises and workout plans.

**Pre-conditions**

* User has installed the fitness tracking mobile app.
* User is logged into their account.

**Test Steps**

1. Navigate to the "Exercises" section of the app.
2. View the exercise library and search for a specific exercise.
3. View a workout plan that includes the selected exercise.
4. Save the workout plan.

**Expected Results**

* The user should be able to view the exercise library and search for specific exercises.
* The user should be able to view a workout plan that includes the selected exercise.
* The user should be able to save the workout plan.

**Test Data**

* Exercise: Push-ups
* Workout Plan: 30-day Push-up Challenge

**Test Case ID: FT005**

**Test Case Name: Integration with Other Apps**

**Description**

Test the ability of users to integrate with other fitness apps and devices.

**Pre-conditions**

* User has installed the fitness tracking mobile app.
* User is logged into their account.
* User has connected

**Usability Test Cases**

**Test Case ID: UT001**

**Test Case Name: Navigation and Layout**

**Description**

To ensure that the app's navigation and layout are intuitive and easy to use.

**Test Steps**

1. Open the app and navigate to the home screen.
2. Locate and tap the menu button.
3. Verify that the menu options are displayed clearly and are easy to read.
4. Tap on each menu option and verify that the corresponding page is displayed with clear and easy-to-read content.
5. Navigate back to the home screen and verify that the app layout is consistent and easy to navigate.

**Expected Results**

* The menu options are displayed clearly and are easy to read.
* Each menu option leads to the corresponding page with clear and easy-to-read content.
* The app layout is consistent and easy to navigate.

**Test Case ID: UT002**

**Test Case Name: Input Validation**

**Description**

To ensure that user input is validated and appropriate error messages are displayed.

**Test Steps**

1. Navigate to the workout log page.
2. Attempt to log a workout with invalid or incomplete input.
3. Verify that appropriate error messages are displayed for each field with invalid or incomplete input.
4. Correct the input and verify that the workout is logged successfully.

**Expected Results**

* Appropriate error messages are displayed for each field with invalid or incomplete input.
* The workout is logged successfully after correcting the input.

**Performance Test Cases**

**Test Case ID: PT001**

**Test Case Name: Loading Time**

**Description**

To ensure that the app loads quickly and efficiently.

**Test Steps**

1. Open the app.
2. Measure the time it takes for the app to load.
3. Repeat the test three times and record the average time.

**Expected Results**

* The app loads within an acceptable time frame, with an average loading time of less than 5 seconds.

**Test Case ID: PT002**

**Test Case Name: Battery Usage**

**Description**

To ensure that the app does not significantly drain the device's battery.

**Test Steps**

1. Open the app and log a workout.
2. Measure the device's battery level before and after using the app.
3. Repeat the test three times and record the average battery usage.

**Expected Results**

* The app does not significantly drain the device's battery, with an average battery usage of less than 5% per workout log.

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