

Software Test Document

BHAVIK BHATT (1814007) PIYUSH CHAVDA (1814010)
BHARAT CHOITHANI (1814011) MUSKAAN NANDU (1814020)

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1 Introduction

1.1 System Overview

Along with development, testing is also a major development cycle which is very important for to achieve the fruition of the Project. Testing helps us to identify the loop holes in the development and avoid future crisis. Testing also helps us to identify the potential failure of system and unwanted access to data. Exhaustive testing is conducted to ensure the system works with accuracy and reliability. This is done to make sure all the bugs are detected before the system is available to end user.

1.2 Test Approach

1.2.1 UNIT TESTING

Unit testing is a type of software testing where individual units or components of a software are tested. The purpose is to validate that each unit of the software code performs as expected. Unit Testing is done during the development (coding phase) of an application by the developers. Unit Tests isolate a section of code and verify its correctness. A unit may be an individual function, method, procedure, module, or object. There are many benefits for this unit testing:

- The unit testing facilitates change in the code.
- It allows testing to be done in a bottom up fashion.

At the same time, unit testing has some disadvantages such as, it might not identify each and every error in the system.

1.2.2 ACCEPTANCE TESTING

User will be involved in this phase of testing to analyse the acceptability and usability of the system. We will use black box testing to ensure the system is suitable to all user with/without technical understanding. This also helps to identify bugs that might have been missed by the previous tests.

1.2.3 SYSTEM TESTING

System consists of all the components that makeup the system to function. This testing is done to ensure that all the components work together with each other and the system as a whole. It should work as expected.

2 Test Plan

The main scope of the test plan for the Airline Reservation System are as follows:

- To identify the features of the system that will be tested.
- To identify and define all the activities necessary to prepare for and conduct the testing process on the Recommendation System
- To define the pass/fail criteria for each item that will be tested
- To identify the deliverables of the testing phase.
- To define any suspension criteria and resumption techniques
- To discuss the testing techniques being used to test the Recommendation System.

2.1 Features to be tested

This section of the test plan lists all the items of the Airline Reservation System project that will be tested:

1. Sign up - This feature is for users who are new to the website and have never used it before. They will have to fill in their personal details and register in the system.
2. Login - This feature is for users who want to use the functions of the website. They need enter their credentials in the website so they can use their account which contains all the information about them and their diet and workout plans.
3. Profile - Every user has a different profile that is filled up with his/her details, history, plans, routines etc. Each profile is unique for every individual and should be accurately working in this web app.
4. Diet Recommendation - This feature recommends a personalized and customized diet plan for an individual and is one of the most important features of this web app.
5. Workout Recommendation - This feature recommends a personalized and customized workout plan for an individual and is one of the most important features of this web app.
6. Blog Community - This a community where users can read trending topics in food and workout industry. They can like blogs written by health experts and similar blogs will be suggested to user in the future as well.

2.2 Features not to be tested

This section of the test plan lists all the items of the Recommendation System that will be NOT be tested:

1. Database Connectivity - Database is one of the most important parts of a

web application. Thus, it is mandatory to check if this is working properly or not. We need to check if all the inputs from the users are properly stored in the database or not. We also need to check if the products from the database are displayed to the users or not.

2. Payment Functionality - This features allows the user to select among the different payment methods offered to him/her and get a plan according to his/her needs.

2.3 Testing Tools and Environment

The time allotted for testing phase is 30 days. The testing phase will be executed by all 4 members of the team: Bhavik Bhatt, Muskaan Nandu, Piyush Chavda and Bharat Choithani. The testing process will carried out with the help of below listed tools:

- Selenium online tool
- TestingWhiz tool
- Ranorex environment

3 Test Cases

3.1 Sign Up

3.1.1 Purpose

Registers the user in the software's database and allows him/her to use the features provided by the software

3.1.2 Inputs

Incorrect Input:

Wrong format entered in the input fields for the registration page

Correct Input:

The correct input would be a valid e-mail id and valid email format of the user and a valid strong format password.

3.1.3 Expected Outputs Pass/Fail criteria

Incorrect:

An appropriate message should be generated to the user saying that he has entered the wrong format in the specific input field.

Correct:

An appropriate message should be generated to the user saying that he has entered the correct format in the specific input field and redirect to the software dashboard.

3.1.4 Test Procedure

The testing would be carried out on FitNoQuit while registering on the system as a new user to the system.

3.2 Sign In

3.2.1 Purpose

Logs in the user to the software where the user can access the features provided by the software.

3.2.2 Inputs

Incorrect Input:

Username: which is the email-id in the case of the Recommendation System FitNoQuit.

Password: with respect to the valid username.

Correct Input:

The correct input would be a valid e-mail id of the user and a correct password associated with the email-id which he uses to log in.

3.2.3 Expected Outputs Pass/Fail criteria

The user should be directed to the dashboard of the software after he/she logs into the system.

On invalid login attempts, the user should remain on the login page or can go to sign up page.

3.2.4 Test Procedure

The testing would be carried out on the FitNoQuit while logging into the system as a customer or a normal user of the system.

3.3 User Profile

3.3.1 Purpose

Every user has a different body type and requirements. The user profile takes into account all the preferences of the user and provides recommendation based on it.

3.3.2 Inputs

Incorrect Input:

Wrong format entered in the input fields on the user profile page.

Correct Input:

The correct input would be valid height, weight, food preferences, health conditions etc

3.3.3 Expected Outputs Pass/Fail criteria

Incorrect:

An appropriate message should be generated to the user saying that the inputted value is invalid for the given field.

Correct:

An appropriate message should be generated to the user saying that he has entered the correct data in the fields.

3.3.4 Test Procedure

The testing would be carried out on FitNoQuit while entering different combinations of data in the input fields.

3.4 Diet Recommendation

3.4.1 Purpose

Recommends a personalized and customized diet plan for an individual based on his/her preferences and medical conditions.

3.4.2 Inputs

Incorrect Input:

Invalid data entered on user information/profile page

Correct Input:
Valid data entered on user information/profile page

3.4.3 Expected Outputs Pass/Fail criteria

Incorrect:

An appropriate message should be generated to the user saying that the entered details are invalid and no diet should be recommended.

Correct:

A personalized diet should be recommended to the user satisfying all his preferences and medical conditions.

3.4.4 Test Procedure

The testing would be carried out on FitNoQuit by entering a combination of health conditions and food preferences.

3.5 Workout Recommendation

3.5.1 Purpose

Recommends a personalized and customized workout plan for an individual based on his end goal and considering user's physical disability if any.

3.5.2 Inputs

Incorrect Input:

Invalid/Improbable end goal or extreme physical disability. Correct Input:

Valid end goal and inputs entered by the user

3.5.3 Expected Outputs Pass/Fail criteria

Incorrect:

An appropriate message should be generated to the user saying that the inputted data is invalid.

Correct:

Different options of workouts need to be displayed to the user from which the user can follow a workout that best suits him/her.

3.5.4 Test Procedure

The testing would be carried out on FitNoQuit entering a combination of inputs and validating the workout suggested based on it.

3.6 Blog Community

3.6.1 Purpose

Users can read trending topics in food and workout industry. They can like blogs written by health experts and similar blogs will be suggested to user in the future as well.

3.6.2 Inputs

Incorrect Input:

None Correct Input:

Liking of a blog.

3.6.3 Expected Outputs Pass/Fail criteria

Incorrect:

None.

Correct:

Blogs on trending topics and topics previously liked by the user should be suggested.

3.6.4 Test Procedure

The testing would be carried out on FitNoQuit by viewing different blogs.

4 Test Results

Test Number	Test Case	Test Description	Expected Outcome	Actual Outcome	Test Result
FNQ-T01	Login Button	An email and password are entered by the user	The system logs in the user and redirects him/her to the home page		
FNQ-T02	Register Button	User enters his/her details	The system logs in the user and redirects him/her to the home page		
FNQ-T03	Update profile	User changes his/her details	The system updates user details successfully and displays it.		
FNQ-T04	Diet Recommendation	User inputs his/her choice of foods and medical conditions if any.	The system recommends a personalized and satisfactory diet plan		
FNQ-T05	Workout Recommendation	User inputs his/her choice of physical activities and his/her goals.	The system recommends a personalized and satisfactory workout plan		
FNQ-T06	Blog Community	User likes a blog or views blogs that are on trending topics	User is shown blogs similar to the ones he/she previously liked along with the new trending blogs.		