Group 3: Jahlil Owens, Trishelle Leal, and Landon Strappazon

Written By Jahlil Owens

Dr. Ruth Lamprecht

CMSCI 349 A

September 13, 2024

## Nutrition and Fitness tracking with Test and Software Engineers

Within our Nutrition and fitness tracking project, both Test Engineers and Software Engineers have to work together to ensure a well-structured application that allows the purpose of users to track their nutrition and fitness throughout the week and reach their fitness goals. The application will allow the user to log their meals, track nutritional intake, and monitor their progress toward their dietary goals. The Test engineer will create the script for these tasks to be functional while the software Engineer will identify the major components of the application ensuring they function cohesively.

As a Test Engineer, they need to create test scripts that fit the requirements for the project. They may not be fully functional in the beginning but after multiple tests and communication with the rest of the team, the scripts should create a secure foundation that ensures that the application functions work as intended. The first test case will focus on the signup section where the user would click the signup button if they never created an account with the application and will input valid information such as their name, email, and password. If their information follows all of the requirements for a valid account, they will submit the form, and the system will generate a new account for the user. This will allow them to access all of the app's features to help start their journey on fitness and nutrition tracking. The next test case is the login section which focuses on the user inputting their correct login credentials to get access to your account within the system. If the information is incorrect then they will be prompted with a message that says the username or password is incorrect. Once the information is inputted correctly, they will be brought to the dashboard within the app to see their information and progress for the week. The third test case is Meal Logging which allows the users to search for food within the system database so they can then log the item for their nutrition. Once they select the food the app will take the data and update it to the front end of the UI where the user's meal logs and nutritional values exist in the dashboard. The fourth test case is the manual meal Logging which has the same process as the third case but instead of the system automatically inputting all of the nutritional values by a search the user is allowed to input each nutritional value for that food item to get a more accurate data towards their dietary goal within the week. The fifth test case is the Progress tracking which tracks the dietary goals that users need to view within the app. They will be prompted with visual representations like charts and graphs alongside the number of nutritional intakes to help display their progress toward their dietary goal. The final test case for a Test Engineer is the Goal setting case which displays the user's main goal that ties with their dietary goals. Once the user is logged in, they can click on the goals section and input a new goal if they do not like their previous goal if one exits. After this update, the goal will appear in the dashboard. The Test Engineer is useful because it allows the user to see and interact with the GUI elements within the system. They allow the user to take advantage of the unique features that assemble the application's purpose. Based on the six test cases that were established we can state that the roles and actors for this project are the User, the Food database, and the Admin. For the User, they would have a provided interface that allows them to log into the system and see the tracking system for their nutrition, diet, and exercise activities. Our Food Database will have information on different foods, condiments, sauces, and more that can be tracked within the user's dietary meals. Once the user inputs the information it can be stored in the system where it has the total tracking of the week for their dietary meal.