

CS 362 In-Class Exercise: Project Beta Testing

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Project that you are testing: Group 6 - NourishQuest

PART-1: Organization and Purpose

Q1) Does the repository provide a README explaining the purpose of the software? If yes, based on reading that documentation, do you understand all the interesting features provided by the software? Do you have any advice to improve that documentation?

Yes, we can find a README file inside the repository because it explains what the software accomplishes. The software system aims to create detailed, free nutrition plans by accepting manual input and using artificial intelligence for processing. In the software's README file, I recommend expanding the section about how AI functions within the program. The software's use of AI requires a more detailed description to clearly show users what the system offers regarding recipe suggestions, calorie management, and dietary plan customization.

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PART-2: Installation and Setup

Q2) Is the documentation to install or setup the software available? (Note that for web application, it would be a URL to access the website and instructions to host the website on a server). When following the instructions, do you face any difficulties while installing the software (accessing the URL for a website)? If yes, please explicitly state what issues you encountered, so that the project team can fix them.

NOTE: If you are testing a web application, then you do not need to set up a web server and try hosting the web application. Just go through the documentation to find out if it clearly explains the steps to host the website.

Yes, the documentation for installing or setting up the software is available. There are clear instructions provided that the user needs to follow in order to run the software. I did not encounter any difficulties while installing the software.

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PART-2: Functional and Non-Functional Testing

Q3) Select a use case for the application-under-test and use your creativity to test the application in different possible ways. For example, if you are testing a login functionality, then test the sign up feature, sign in, adding invalid credentials, special characters, etc. Please provide the details of the use case you tested on the software by describing exactly what all you did and in what order? Make sure you are making notes while doing this. If you find any issues (e.g., something that was confusing, incorrect, or not working at all), please provide as many details as you can to replicate the issues so that the team can fix them.

I tested the Leaderboard feature, which is supposed to display the names of the top 20 users based on points earned through achievements. To appear on the leaderboard, users need to claim points from achievements, but I found that this feature was not functional, preventing users from earning points and securing a ranking. Additionally, instead of displaying usernames, the leaderboard was showing raw SQL script code, which suggests a potential vulnerability or database query issue. This could pose a security risk if the system is improperly handling or escaping database queries. To reproduce the issue, I navigated to the Leaderboard page, attempted to claim points from achievements, and observed that nothing happened, while the leaderboard displayed SQL script output instead of user names. To fix these issues, the achievement claiming system needs to be properly implemented, database queries should be sanitized to prevent SQL exposure, and input validation must be enforced to ensure proper leaderboard functionality and security.