**Name:** Mohammad Umar

**Functionality:** Car Mechanic Robot

**Partner Name:** Jason Paek

**Test Cases**

1. Does the application open to a splash screen and can you see the menu?
2. Is there a navigation tab on every screen with a title, back button, and menu button?
3. Is there a cancel button on the review and confirmation screen which allows users to cancel any service they have selected?
4. Under Tire Maintenance test Tire Rotation functionality. Click the Tire Rotation button, select one of the patterns, and review and confirm the selection.
5. Under Tire Maintenance test Tire Replacement functionality. Click the Tire Replacement button, click the Spare Tire Replacement button, choose any one out of the four options, and review and confirm the selection.
6. Under Tire Maintenance test Tire Replacement functionality. Click the Tire Replacement button, click the New Tire Replacement button, choose Front-Right-Tire and Back-Left-Tire options, and review and confirm the selection.
7. Under Tire Maintenance test Tire Pressure Check functionality. Click the Tire Pressure Check button, choose Front-Right-Tire and Back-Left-Tire options, and review and confirm the selection.
8. Under Tire Maintenance test Fill Tire Air functionality. Click the Fill Tire Air button, choose Front-Right-Tire and Back-Left-Tire options, and review and confirm the selection.
9. Check the Oil Change functionality. Select 5000 Miles for Next Oil Change In option, then select any oil type, select one of the oil, and review and confirm the selection.
10. Check Internal Cleaning functionality. Select the Customized Cleaning button, select Vacuuming, Glass Cleaning, and Perfuming options, and review and confirm the selection.
11. Check Internal Cleaning functionality. Select the Full Interior Cleaning button, then review and confirm the selection.
12. Check External Cleaning functionality. Select one of the cleaning packages, then review and confirm the selection.

**Testing Summary**

The testing of the prototype was conducted with two testers. Jason, who is my partner, and one external tester Bilal who in this case is my older brother. The goal of testing the prototype is to see if the prototype is ready to be delivered to the user. Goals include determining if any improvements need to be made to the prototype. Also, to evaluate the prototype to determine if the prototype matches all the requirements and meets the expectation of the user. The testers conducted the testing using the twelve test cases provided by me. The type of testing performed involved testing some basic features that every good prototype should have such as a splash screen, menu, and navigation tab. The majority of the testing revolved around testing the different functionality integrated into the prototype.

Testing with my partner was conducted on Discord using voice call which was scheduled in advance. After introductions, I provided my partner with the test cases along with the link to my prototype. Also, I provided some instructions and let my partner know that I am available to him throughout the whole process if he had any questions. Before beginning the testing on the prototype, I request that my partner share his screen with me to allow me to follow the testing process more closely. Also, in case some difficulties arise I would be able to understand the problem more clearly and provide help quickly without having to waste my tester’s time. Thankfully, there were no difficulties technical or otherwise and the whole testing process went smoothly. The testing took 15 minutes, and the tester was able to perform all the tests quite easily. I use word doc to take notes during the testing as it was convenient for me. After the testing was completed, I thanked the tester for his time and participation. The feedback provided by the tester was very helpful to me in understanding what things in the prototype were good and what things need improvements.

Testing with the external tester was conducted in person schedule in advance being mindful of the tester’s schedule. I tried to simulate a professional environment and formally introduce myself and the tester also introduced himself. Then I provided the tester with some background information about the prototype that he will be testing. Along with the instructions on how to conduct the testing. After this, I provided the tester with the test cases that he will be used to conduct the test and the link to the prototype. I let the tester know I am here if he has any questions during the testing of the prototype. The testing took 22 minutes. As the tester begins testing the prototype, he seems a little overwhelmed with the whole process as this tester had never done anything like this before which is quite acceptable. After a few minutes, the tester started to relax as the task was not very difficult and he seemed to get the hang of the task at hand. The testing of the prototype went very smoothly after that, and the tester was able to complete the test without any problems. With this tester, I also used word doc to take notes and after testing I thanked the tester and concluded our meeting. The feedback provided by this tester was excellent overall and the tester found the prototype simple and easy to use.

**Improvements identified as a result of your testing**

1. The prototype has some spacing issues in some of the screens in the tire maintenance section.
2. It needs to include more images/icons in the prototype.
3. The prototype needs clearer wording for easier navigation between the screens.
4. The colors of the buttons need to be consistent for all oil change and tire rotation sections.
5. In review and confirmation screens change the cancel button color to different color to differentiate between confirm and cancel buttons.

**Final evaluation of the system**

I think the prototype is acceptable for delivery as it is thought there can certainly be some improvements that can be made to make the prototype better. With a prototype such as this or any prototype, you can always find some things to improve or add. Initially, when I started developing this prototype, I thought to keep everything simple both the overall design and the usability of the prototype. The usability of the prototype is excellent since the prototype is easy to navigate for anyone whether that person is tech-savvy or not tech-savvy. But the design of the prototype certainly could be more appealing. The text, buttons, and more importantly the images/icons could be made more colorful. Looking at the overall quality of the prototype compared to the requirements of the prototype given by the user, I think the prototype has turned out quite well. It has everything the user requested specifically concerning the functionalities provided by the user.

As I look at the prototype from an objective point of view, I can see that it has some important functionality. But there could be some more basic or complex functionality that could be included to make the prototype more exciting since currently, I find the prototype to be not that sensational. Complex functionality like replacing or fixing the engine or changing all other types of car fluids other than oil change could give this prototype an edge. Even with some basic functionality such as scheduling features, it will make the prototype more remarkable. Functionalities are one of the biggest things I found this prototype to be lacking to make this prototype. As a developer who developed this prototype, I found this prototype to be useful for the users but exciting. Also, with some more functionality included in the prototype, the prototype will seem complete rather than as it is now which is just meeting the requirements.

**Potential improvements not in the scope of the project.**

1. The prototype includes a scheduling feature for the users so they can schedule repairs in advance.
2. The prototype includes a new feature that will allow the users to get their car custom painted according to their preferences.
3. Include a new feature in the prototype that will allow users to get their engines fixed.
4. The prototype include a new feature that will allow users to get their car fluids changes like coolant, transmission fluid, brake fluid, and windshield wiper fluid.
5. Include a feature for live customer support that will help the users get answers to the questions the user might have.