AutoDiagScan Simple Problem Scenario

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All cars have a built-in computer that allows the user to check the car's status if problems were to arise. With the AutoDiagScan tool, users can diagnose car problems with a single application and On-board diagnostics (OBD2) connector. The application will output errors according to the problems found on the car after selecting to run diagnostics. This scenario describes what will happen when a person uses the application and encounters a simple error.

A feature that this application will use in this scenario is that all the errors encountered will be stored in a database that can easily be changed. The database will be based off of mySql workbench.

Scenario: "Encountering a Simple Error – A Dead Battery"

First, the user will connect an external source to the vehicle and then open up the application on a device.

On the homepage of the application, the user will select the "Connect" button. From there, it will then recognize the connection to the vehicle and allow the user to input the vehicle's model, year, make and engine type. After that is established, more options will appear on the homepage of the app. These options include "Run Diagnostics", "Nearby Auto Repair Shops", "Previous Scanned Reports", and "Options". There will also be a daily helpful tip displayed at the bottom of the application that's related to cars.

The "Run Diagnostics" will complete a scan of the user's car and create a report of any problems found and then save it to the database.

The "Nearby Auto Repair shop" will let the user find repair shops in a user selected radius.

The "Previous Scanned Reports" will find previously saved reports and allow the user to select them to view as a READONLY file.

The "Options" will let the user configure settings such as language, clearing previously scanned reports, adjusting radius of nearby auto repair shops, etc.

In this scenario, the user will press "Run Diagnostics". From there, the connector will analyze the vehicle for any issues, compile it into a report and send that report to the application. The application will then show a report of a minor error found during the scan. This process should take somewhere between 10 to 20 seconds. The error shown in this scenario is "Error code:

P0562: Dead battery". Since this is a minor issue, the application will then show step by step instructions on how to fix this and a list of local Auto Repair shop. This issue will be saved in the database and put under "Previous Scanned Reports" with the issue, time and date for the user to see.

Figure 1 - Diagram of AutoDiagScan User Interface