**Name:** Mohammad Umar

**Functionality:** Car Mechanic Robot

**Partner Name:** Jason Paek

**Overview**

The robot will provide different types of car services to the customers. The robot will service your car in an efficient manner to ensure you have the best possible experience. The services provided by the robot will be that of the highest standard all while ensuring that your car provides the best possible performances.

**Outline**

1. Tire Maintenance
   1. Tire Rotation 
      1. Select Tire Rotation Pattern
         1. Forward Cross
         2. X-Pattern
         3. Rearward Cross
         4. Front-To-Rear
         5. Side-To-Side
         6. Forward Cross with Spare
         7. Rearward Cross with Spare
         8. Random Pattern Selection
      2. Review and Confirmation
         1. Confirm Tire Rotation
   2. Tire Replacement
      1. Spare Tire Replacement
         1. Front-Right-Tire
         2. Front-Left-Tire
         3. Back-Right-Tire
         4. Back-Left-Tire
      2. New Tires Replacement
         1. All Tire
         2. Front-Right-Tire
         3. Front-Left-Tire
         4. Back-Right-Tire
         5. Back-Left-Tire
      3. Review and Confirmation
         1. Confirm Tire Replacement
   3. Tire Pressure Check
      1. Select Service Type
         1. All Tire Pressure Check
         2. Front-Right-Tire Pressure Check
         3. Front-Left-Tire Pressure Check
         4. Back-Right-Tire Pressure Check
         5. Back-Left-Tire Pressure Check
      2. Review and Confirmation
         1. Confirm Pressure Check
   4. Fill Tire Air
      1. Select Air Type
         1. Compressed Air
         2. Nitrogen
      2. Select Service Type
         1. Fill All Tire Air
         2. Front-Right-Tire Air Fill
         3. Front-Left-Tire Air Fill
         4. Back-Right-Tire Air Fill
         5. Back-Left-Tire Air Fill
      3. Review and Confirmation
         1. Confirm Tire Air Fill
2. Oil Change
   1. Select Next Oil Change In
      1. 3000 Miles
      2. 5000 Miles
      3. 7500 Miles
   2. Select Oil Type
      1. Full Synthetic Motor Oil
         1. Mobil 1 Advanced
         2. Castrol GTX Magnatec
         3. Castrol Edge Advanced
         4. Pennzoil Platinum
         5. Shell Rotella T6
         6. Valvoline Advanced
      2. Synthetic Blend Motor Oil
         1. Mobil 1 Extended Performance
         2. Mobil 1 High Mileage
         3. Castrol GTX Ultraclean
         4. Castrol GTX High Mileage
         5. Pennzoil Marine Premium Plus 2-Cycle
         6. Valvoline High Mileage MaxLife
      3. Conventional Motor Oil
         1. Castrol GTX
         2. Valvoline Daily Protection
         3. Pennzoil Motor Oil
         4. Pennzoil High Mileage
         5. Quaker State Advanced Durability
   3. Review and Confirmation
      1. Confirm Oil Change
3. Internal Cleaning
   1. Select Cleaning Service Type
      1. Full Interior Cleaning
      2. Customized Cleaning
         1. Vacuuming
         2. Steam Cleaning
         3. Wiping
         4. Glass Cleaning
         5. Brushing
         6. Perfuming
   2. Review and Confirmation
      1. Confirm Cleaning Service
4. External Cleaning
   1. Select Cleaning Service Package
      1. Bronze (Basic Soft Cloth Wash, Spot-Free Rinse, Blow Dry)
         1. Review and Confirmation

4.1.1.1.1. Confirm Bronze Service

* + 1. Silver (Bronze+, Single Polish, Tire Shine, Rust Inhibitor, Underbody Rinse)
       1. Review and Confirmation

4.1.2.1.1. Confirm Silver Service

* + 1. Gold (Silver+, Triple Polish, Surface Protectant, Wheel Guard)
       1. Review and Confirmation

4.1.3.1.1. Confirm Gold Service

* + 1. Platinum (Gold+, Cascade of Clean Foam Bath, Carnauba Wax Waterfall)
       1. Review and Confirmation

4.1.4.1.1. Confirm Platinum Service