



Faculty of Information Technology
University of Moratuwa
BSc Hons in Information Technology
BSc Hons in Artificial Intelligence
BSc Hons in Information Technology and Management

IN 2211 - Object Oriented Analysis and Design

Level 2 – Semester 1

Lab Sheet 02

An Automated Vehicle Care System

Description - The goal of this project is to provide a system for vehicle owners to get vehicle cleaning and checkup services.

The registration unit at the entrance automatically checks the plate number of the vehicle in order to check whether the owner is an existing customer to issue a care plan according to the type and the history of service turns of the vehicle.

If the owner's details are absent, then the machine will automatically recognize the type of vehicle and ask the customer to enter the details. Once the customer submits the form, the care plan will be issued. A customer is always willing to do an exterior cleaning with wax polishing. However, the owners of public transport vehicles always do an interior cleaning and engine checkup additionally.

The owners of off-road vehicles can also do an engine checkup if they want. After every successful completion of a caring step (ex. the exterior cleaning, interior cleaning, or engine checkup, etc.) a technician marks the completed caring processes on the care plan issued to each customer at the entrance. At the exit point, a payment processing machine checks the care plan of the customer and issues an invoice.

The customer can then pay with a prepaid card issued by the caring center. Then the machine will process the payment. If the vehicle is owned by a newly registered customer, then a 20% discount will be given in the process of payments. Further, a 10% discount will be given to the existing customers after every three service turns.

1. Identify the users involved in this system.
2. Draw the use case diagram to describe this system from the users' point of view.