

PROJECT

Module

Mobile Web
Development

Module Code

IT3041FP

Duration

40 hours

Title:

Create, deploy and test a rich interactive application.

Tools, Equipment and Materials:

- 1 Personal Computer with Internet access and HTML editor software.
- 2 Mobile Devices for testing.
- 3 Google Chrome and Firefox for testing.
- 4 Relevant jQuery or equivalent library and its plugins.

Instructions:

Part (A)

1. You will need to develop an interactive web Car Show Room application to simulate and manage the sale of cars in a store.
2. The application should run on any browser and client side library such as jQuery or equivalent should be used.
3. Customers arrive at the store are presented in a queue and the queue can only receive a maximum of 10 customers at any one time. Only the first customer in queue can be move, the others must wait for their turn.
4. The application allows the first customer in the queue to be moved to a car according to their preference (Porsche, Volkswagen, Audi or BMW). When the first customer in the queue is moved to a car, a new customer can enter the queue.
5. The application will display a list of cars for sale in the store. The cars are grouped by brand on the sales floor:
 - 5.1. Porche with 4 cars.
 - 5.2. Volkswagen with 6 cars.
 - 5.3. Audi with 5 cars.
 - 5.4. BMW with 3 cars.
6. The application only allows customer that is being moved to occupy a car that matches the brand that they are interested in. If customer is dropped in other place, they should return to the top of the queue.

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7. A car that is being used by a customer cannot be used by another until the original customer is moved to another or to exit, thus freeing the position.
8. The application will display a cashier area where customers decide if they would like to buy the visited car or not.
9. The application will display an exit area where customer can leave the store immediately.
10. The application will display the number of customers served, the number of cars sold and the amount collected from the total sale of cars.
11. Any customer who is in a car can be moved to the cashier area and a message should be displayed to the user of the application with the following question:
 - 11.1. Would you like to purchase the car?
 - 11.2. The response options should be "Yes" or "No".
12. If the answer is "No", the customer must be removed from the application.
13. If the answer is "Yes", the customer should be removed from the application. The car purchased needs to be presented with a "SOLD" in front or above the purchased car. The car sold cannot be visited anymore by any customer. After removal of the customer, the aggregation display of the application is updated, increasing the number of customers served, the number of cars sold and the amount collected from the sale according to the price list below:
 - 13.1. Porsche: S\$ 72,500.00
 - 13.2. Volkswagen: S\$ 23,930.00
 - 13.3. Audi: S\$ 31,260.00
 - 13.4. BMW: S\$ 43,990.00
14. A customer as that in a car can only be moved to another available car of the same brand required, to the cashier, or to the exit areas. The customer should return to the original point if dropped in any other area of the application.

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Part (B)

- 1 Your application should be cross-browser compatible with different internet browsers.
- 2 Your application should successfully display the user interface elements on the Car Show Room webpage.
- 3 Your application should behave according to the requirement of the Car Show Room application describe in Part A.
- 4 Your application is responsive to the width of different output devices and displayed consistently on different devices.
- 5 Appropriate comments should be added into the code to clarify the operations performed by blocks of command used.
- 6 Your application should be tested to show that it is working according to the requirement.
- 7 Your module lecturer will insert an error in your submitted project, to test on your ability to troubleshoot.

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