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| **LAB211 Assignment** | **Type:** | **Short Assignment** |
| **Code:** | **J1.S.P0066** |
| **LOC:** | **73** |
| **Slot(s):** | **1** |

**Title**

Car showroom.

**Background**

N/A

**Program Specifications**

There are three types of car in the showroom:

***AUDI***:

* Available colors: ***WHITE***, ***YELLOW***, ***ORANGE***
* Price: 5500, 3000, 4500 $
* Sold on: ***FRIDAY*** ***SUNDAY*** ***MONDAY***

***MERCEDES:***

* Available colors: ***GREEN***, ***BLUE***, ***PURPLE***
* Price: 5000, 6000, 8500 $
* Sold on: ***TUESDAY***, ***SATURDAY***, ***WEDNESDAY***

***BMW***:

* Available colors: ***PINK***, ***RED***, ***BROWN***
* Price:2500, 3000, 3500 $
* Sold on: ***MONDAY***,***SUNDAY***, ***THURSDAY***

Write a program to help salesmen to check that the customer’s needs match the current cars showroom is selling.

* Given that customers can choose unpainted car to get $100 discount.
* Customers can choose other options which will be added to the final price of the car.

***Function details:***

**Function 1:** Display Gui And Input Data.

* User runs the program. The program prompts user to input data.
* Auto next **Function** **2**.

**Function 2:** Perform function

* Program displays information of customer’s request, and check if they match the cars in showroom?
* Display message and exit program.
* Sort by price

***Expectation of User interface:***

===== Showroom car program =====

Input Information of Car

Name: BMV

Color: no color

Price: 2400

Today: THURSDAY

Can’t sell Car

Car break

Name: BMW

Color: no color

Price: 2400

Today: THURSDAY

Sell Car

Do you want find more?(Y/N):Y

1

2

Name: BMW

Color: color

Price: 2400

Today: THURSDAY

Can’t sell Car

Color Car does not exist

Name: BMW

Color: no color

Price: -200

Today: THURSDAY

Can’t sell Car

Price greater than zero

Name: BMW

Color: no color

Price: a

Today: THURSDAY

Can’t sell Car

Price is digit

Name: BMW

Color: no color

Price: 2400

Today: FRIDAY

Can’t sell Car

Car can't sell today

**Guidelines**

**Student must implement methods**

* checkCar
* getPrices
* getColors
* getDaySells

**in startup code.**

**Hint**

* Create ExceptionCar class which inherits Exception class; pass the message content to the constructor.
* Create Car Enum:
  + Create methods getPrices, getColors, getDaySells which return the List of sale information.
  + Create method Car getCar(String car)
* Create Enum Day:
  + List all days in a week
  + Create method Day getDay(String day), if day is not a Day Enum then return null.
* Create Enum Color:
  + List all colors of car in showroom, and “no color” option.
  + Create method Color getColor(String color), if color is not a Color Enum then return null.
* Create method checkCar whose input is the information of customer’s request. It validates the information and return the Car Enum if matched, if not it throws the ExceptionCar.
* In Main, use scanner to enter the car information
  + If name of car is not in Car Enum, enter null value using getCar method.
  + If color of car is not in Color Enum, enter null value using getColor method.
  + If the day is not in Day Enum, enter null value using getDay method.

**Function 1:** Validate car sale information

* Method name: public Car checkCar(Car car, String color, Day day, String price) thows ExceptionCar
  + Input:
* car: Enum Car
* color: Enum Color
* day: Enum Day
* price: Prices of car
  + Return:
* Enum Car
* ExceptionCar