

Problem 1

Demonstrate a class Car that has following

Variables: i) colour ii) model iii) max_speed

Constructor:

```
Car(int speed, string colour, string model)
```

```
//define the constructor with following methods:
```

```
i) void break(void):
```

```
// it will display a suitable text msg based on the current model of the car
```

```
ii) void acc (void):
```

```
// display a text message based on the current model of the car.
```

Define a class Demo to test the following: 1. Create two objects of Car. Name them objCar_1 and objCar_2. 2. Initialize there object with suitable information from the following.

```
i) ObjCar_1 = {
    model="Swift"
    colour= "Silver"
    max_speed= 180
    break= 10 mtr for 60 km/hr
    acc= 4.6 sec to reach 0.100km/hr
}
ii) ObjCar_2= {
    model= "Alto"
    colour= "Red"
    max_speed= 140
    break= 20 mtr for 60 km/hr
    acc= 12 sec to reach 0.100km/hr
}
```

3. Todo:

- a) call each method from both objects.
- b) print the colour of Alto.
- c) change the colour of Alto and make it 'Blue'.
- d) change the model of Swift to Swift_SX.

Code:

Car.java

```
package aug_09_2023;
```

```

public class Car {
    int max_speed;
    String colour;
    String model;

    public Car(int speed, String modl, String color) {
        max_speed= speed;
        model = modl;
        colour = color;
    }

    public void brake() {
        if (model.equals("Swift"))
            System.out.println("Takes 10 mtr to stop while at the speed of 60 km/hr.");
        else
            System.out.println("Takes 20 mtr to stop while at the speed of 60 km/hr.");
    }

    public void acc() {
        if (model.equals("Swift"))
            System.out.println("Takes 4.6s to reach from 0 to 100 km/hr.");
        else
            System.out.println("Takes 12s to reach from 0 to 100 km/hr.");
    }
}

Demo.java
package aug_09_2023;

public class Demo {
    public static void main(String[] args) {

        // Answers to the first & second instructions..
        Car objCar_1 = new Car (180, "Swift", "Silver");
        Car objCar_2 = new Car(140, "Alto", "Red");

        // Answer to the third instruction..
        objCar_1.brake();
        objCar_1.acc();

        System.out.println("-----");
        objCar_2.brake();
        objCar_2.acc();

        // Answer to the fourth instruction..
        System.out.println("-----");
    }
}

```

```

        System.out.println("Colour the Alto is " + objCar_2.colour);

        // Answer to the fifth instruction..
        objCar_2.colour= "Blue";
        System.out.println("Colour of the Alto after is now" + objCar_2.colour);

        // Answer to the sixth instruction
        objCar_1.model= "Swift_SX";
        System.out.println("Model of Swift changed to " + objCar_1.model);
    }
}

```

Output:

Takes 10 mtr to stop while at the speed of 60 km/hr.
 Takes 4.6s to reach from 0 to 100 km/hr.

 Takes 20 mtr to stop while at the speed of 60 km/hr.
 Takes 12s to reach from 0 to 100 km/hr.

 Colour the Alto is Red
 Colour of the Alto after is nowBlue
 Model of Swift changed to Swift_SX