

Assignment 7:

- 1) Input 10 car details. Search the model number from user and display data of the resultant cars.

Source Code:

```
package package4;
import java.util.ArrayList;
import java.util.Scanner;

public class Car {
    private String licencenumber;
    private String model;
    private double currentMilege;
    private int enginesize;

    public String getLicencenumber() {
        return this.licencenumber;
    }

    public void setLicencenumber(String licencenumber) {
        this.licencenumber = licencenumber;
    }

    public String getModel() {
        return this.model;
    }

    public void setModel(String model) {
        this.model = model;
    }

    public double getCurrentMilege() {
        return this.currentMilege;
    }

    public void setCurrentMilege(double currentMilege) {
        this.currentMilege = currentMilege;
    }

    public int getEnginesize() {
        return this.enginesize;
    }

    public void setEnginesize(int enginesize) {
        this.enginesize = enginesize;
    }

    public void printCar() {
        System.out.println("Licence number: " + licencenumber);
        System.out.println("Model: " + model);
        System.out.println("Current mileage: " + currentMilege);
        System.out.println("Engine size: " + enginesize);
    }
}
```

```

    }

    ArrayList<Car> findCarList(Car[] cars, String model) {
        ArrayList<Car> carList = new ArrayList<Car>();

        for (int i = 0; i < cars.length; i++) {
            if (cars[i].getModel().equals(model)) {
                carList.add(cars[i]);
            }
        }
        return carList;
    }
}

class Main {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        Car[] cars = new Car[10];
        for (int i = 0; i < cars.length; i++) {
            cars[i] = new Car();
            System.out.println("Enter Car" + (i + 1) + " Model, CurrentMilage, Engine
Size, License No:");

            cars[i].setModel(sc.next());

            cars[i].setCurrentMileage(sc.nextDouble());

            cars[i].setEnginesize(sc.nextInt());

            cars[i].setLicencenumber(sc.next());

        }
        System.out.println("Enter Model to find:");
        String model = sc.next();
        ArrayList<Car> resulantCars = new Car().findCarList(cars, model);
        sc.close();
        if(resulantCars.size()==0){
            System.out.println("No car found");
        }
        else{
            for (Car car : resulantCars) {
                System.out.println("\n-----");
                car.printCar();
                System.out.println("-----");
            }
        }
    }
}
}

```

Output:

```
Enter Car1 Model, CurrentMilage, Engine Size, License No:
Audi 60 100 PB1
Enter Car2 Model, CurrentMilage, Engine Size, License No:
BMW 40 100 PB2
Enter Car3 Model, CurrentMilage, Engine Size, License No:
Chevrolet 50 100 PB3
Enter Car4 Model, CurrentMilage, Engine Size, License No:
Discover 40 100 PB4
Enter Car5 Model, CurrentMilage, Engine Size, License No:
Audi 45 110 PB5
Enter Car6 Model, CurrentMilage, Engine Size, License No:
BMW 40 100 PB6
Enter Car7 Model, CurrentMilage, Engine Size, License No:
Chevrolet 50 100 PB7
Enter Car8 Model, CurrentMilage, Engine Size, License No:
Discover 40 100 PB8
Enter Car9 Model, CurrentMilage, Engine Size, License No:
Audi 55 120 PB9
Enter Car10 Model, CurrentMilage, Engine Size, License No:
BMW 40 100 PB10
Enter Model to find:
Audi
```

```
-----
Licence number: PB1
Model: Audi
Current mileage: 60.0
Engine size: 100
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```

```
-----
Licence number: PB5
Model: Audi
Current mileage: 45.0
Engine size: 110
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```

```
-----
Licence number: PB9
Model: Audi
Current mileage: 55.0
Engine size: 120
-----
```