

For this exercise, follow the steps in document: **createNewJavaProject**

Use the following project, package and class names:

Project: **CarProject**

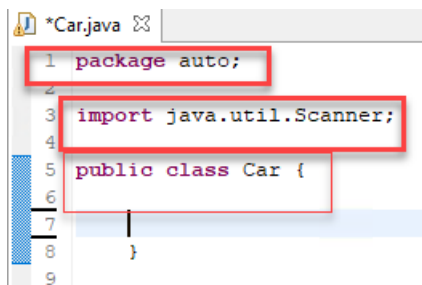
Package: **auto**

Class: **Car**

You should **CarProject** have a copy of the source code.

The **Car.java** class file will open in the **Eclipse editor** window. Notice the **constructs** package name.

In the main method, enter the code below



```
1 package auto;
2
3 import java.util.Scanner;
4
5 public class Car {
6
7
8 }
9
```

```
package auto;

import java.util.Scanner;

public class Car {

    private String make="";           //declare attributes
    private String model="";
    private int year;
    private int doors;
    private String sdoors="";

    public Car(String make1,String modell,int year1) {    //constructor with 3
parameters
        make = make1;
        model= modell;
        year = year1;
    }

    public Car(String modell,int year1) {                //constructor with 2 parameters
        model= modell;
        year = year1;
    }
}
```

```

    public void setCarMake(String make1) { //set the car make

        make = make1;
    }

    public String getCarMake(){ //return the car make

        return make;
    }

    public void setCarModel(String model1) { //set the car model

        model = model1;
    }

    public String getCarModel() { //return the car model

        return model;
    }

    public void setCarYear(int year1) { //set the car year

        year = year1;
    }

    public int getCarYear() { //get the car year

        return year;
    }

    public String toString() { //Cast or convert the Car type to
strings

        if(make.equalsIgnoreCase("")){
            return "Car model: " + model + ", Car Year: " + year; //Output
if model, and year are passed to constructor
        }
        else{
            return "Car make:" + make + ", model: " + model + ", Car Year: "
+ year; //Output if make, model, and year are passed to constructor
        }
    }

    public void setBodyType(int numdoor){ //overloaded method set the body
type takes an int, sets a String
        doors = numdoor;
        String sdoor = Integer.toString(doors); //Cast int door as a
String sdoor
        sdoors = doors + " sdoor"; //Concatenate the Strings
to a single String
    }

    public void setBodyType(String type){ //overloaded method set the
body type takes a String, sets a String
        sdoors = type;
    }

```

```

    public String getBodyType(){ //return body type
        return sdoors;
    }

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        Scanner keyboard = new Scanner(System.in); //Instantiate Scanner,
        create keyboard object
        System.out.println("enter car1 make"); //Output instructions
        String mymake = keyboard.next(); //Get String input from keyboard

        System.out.println("enter car1 model"); //Output instructions
        String mymodel = keyboard.next(); //Get String input from
        keyboard

        System.out.println("enter car1 year"); //Output instructions
        int myyear = keyboard.nextInt(); //Get int input from keyboard
        // "Ford", "F150" ,
        2015
        Car car1 = new Car(mymake, mymodel , myyear); //instantiate Car class
        and create car1 object. Use 3 parameter constructor
        Car car2 = new Car("Corvette" , 2018); //instantiate Car class
        and create car2 object. Use 2 parameter constructor
        Car car3 = new Car("Jeep", "Rubicon" , 2020); //instantiate Car
        class and create car3 object. Use 3 parameter constructor

        car1.setBodyType(4); //call overloaded method setBodyType
        passing in an int
        String stype = car1.getBodyType(); //call getBodyType to return
        body type to a String
        System.out.println("The car1 body type is: " + stype); //Output
        body type

        car2.setBodyType("Cross over"); //call overloaded method
        setBodyType passing in a String
        String myType = car2.getBodyType(); //call getBodyType to return
        body type to a String
        System.out.println("The car2 body type is: " + myType);
        //Output body type

        car3.setBodyType("SUV"); //call overloaded method setBodyType
        passing in a String
        String myType3 = car3.getBodyType(); //call getBodyType to return
        body type to a String
        System.out.println("The car3 body type is: " + myType3);
        //Output body type

        System.out.println(car1.toString()); //Call toString method on
        car objects. Output car data.
        System.out.println(car2.toString());
        System.out.println(car3.toString());

        keyboard.close(); //Delete keyboard object from memory
    }

```

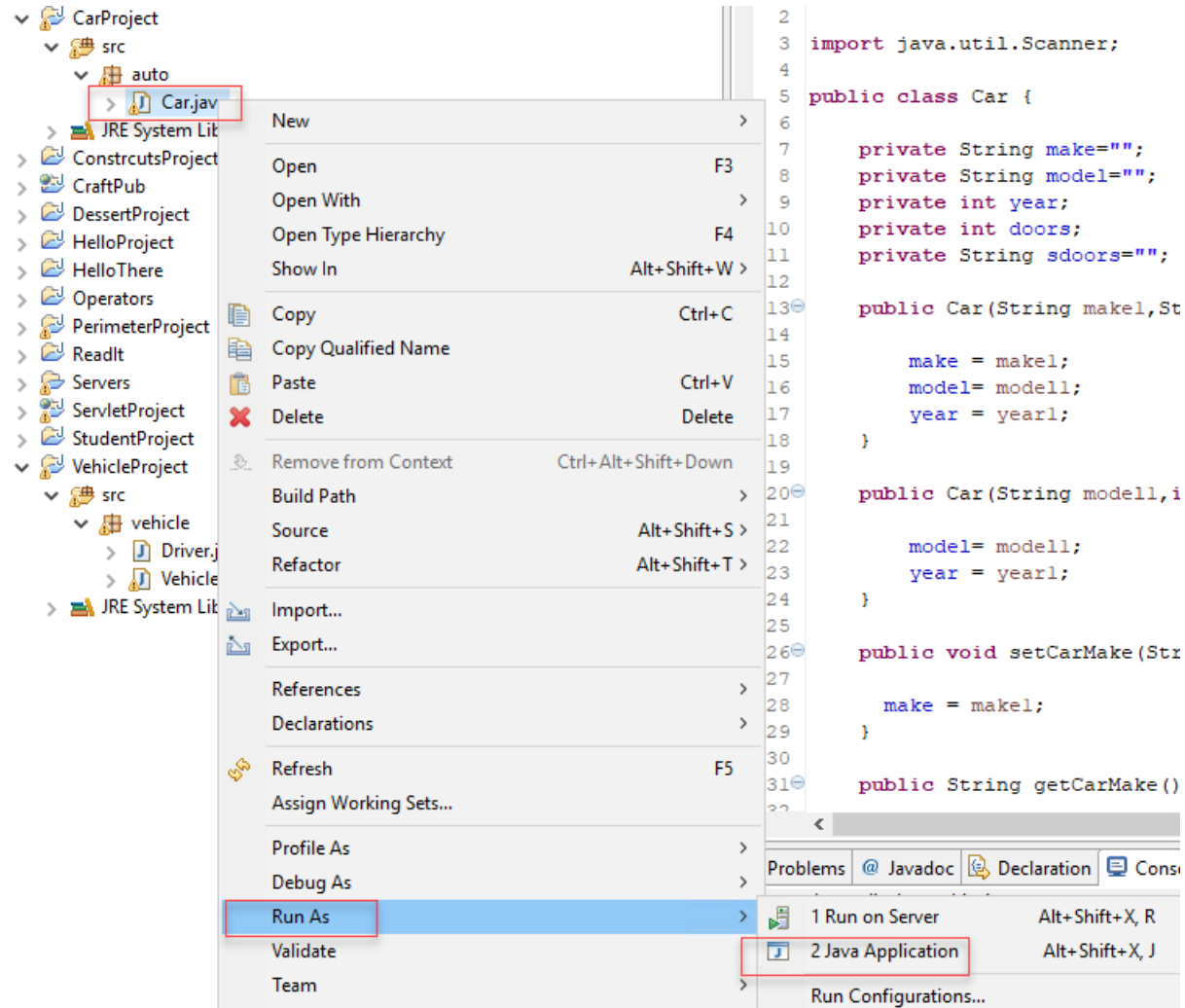
```

}

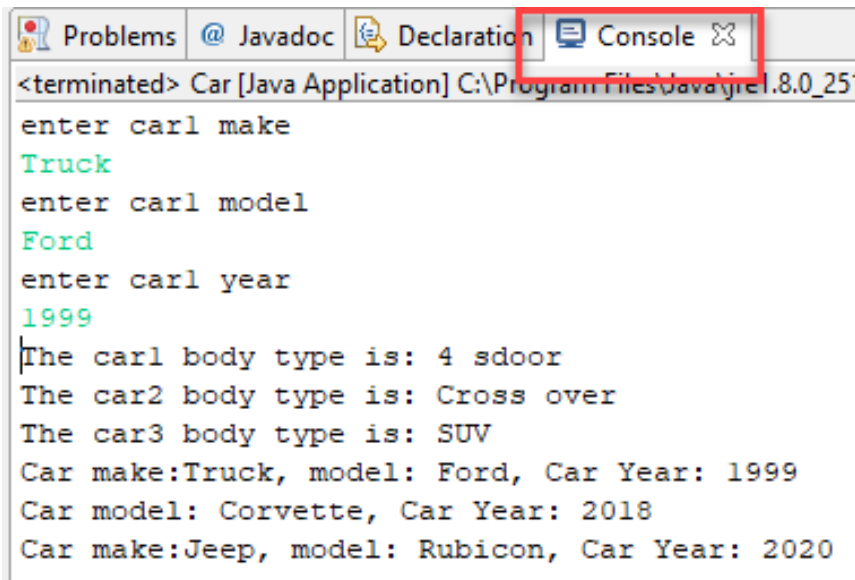
```

Run the application.

In the **CarProject** project, select the **Car.java** class file, right click, click **Run As -> Java Application**.



The output will appear in the **Console** window.



The screenshot shows the Eclipse IDE's Console window. The title bar indicates the application is terminated. The console output shows a sequence of user inputs and program responses. The inputs are 'Truck', 'Ford', and '1999'. The program responds with body types for three cars and then prints the make, model, and year for each car.

```
<terminated> Car [Java Application] C:\Program Files\Java\jre1.8.0_251
enter car1 make
Truck
enter car1 model
Ford
enter car1 year
1999
The car1 body type is: 4 sdoor
The car2 body type is: Cross over
The car3 body type is: SUV
Car make:Truck, model: Ford, Car Year: 1999
Car model: Corvette, Car Year: 2018
Car make:Jeep, model: Rubicon, Car Year: 2020
```