

LAB_ANP_C6339_CONSTRUCTOR

Due date: Thursday, 26 October 2023, 5:30 AM

Maximum number of files: 1

Type of work: Individual work

Lingabathula Thapaswi[AF0339471]

Assignment-1.

- Write a Java program named Car
- The Car class should have the following attributes: make (String), model (String) , year (short) , and price(int) .
- The car class should have a constructor that takes all the attributes.
- Add a main method to instantiate car objects.
- The program should allow the user to create and display objects of each

Solution:-

```
public class Car {  
  
    private String make;  
    private String model;  
    private short year;  
    private int price;  
  
    public Car(String make, String model, short year, int price) {  
        this.make = make;  
        this.model = model;  
        this.year = year;  
        this.price = price;  
    }  
  
    public String getMake() {  
        return make;  
    }  
  
    public void setMake(String make) {  
        this.make = make;  
    }  
}
```

```
public String getModel() {  
    return model;  
}
```

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

```
public short getYear() {  
    return year;  
}
```

```
public void setYear(short year) {  
    this.year = year;  
}
```

```
public int getPrice() {  
    return price;  
}
```

```
public void setPrice(int price) {  
    this.price = price;  
}
```

```
//@Override
```

```
public String toString() {  
    return "Car{" +  
        "make=" + make + "\" +  
        ", model=" + model + "\" +  
        ", year=" + year +  
        ", price=" + price +  
        "}";  
}
```

```

public static void main(String[] args) {

    // Create a new Car object

    Car myCar = new Car("Toyota", "Camry", (short)2023, 25000);


    // Display the Car object details

    System.out.println(myCar);

}
}

```

Output:

```

C:\Users\thila\OneDrive\Desktop\Anudip_Labs>javac Car.java

C:\Users\thila\OneDrive\Desktop\Anudip_Labs>java Car
Car{make='Toyota', model='Camry', year=2023, price=25000}

```

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Assignment-2

Define a student class with following data members

Idno, name, course and average

Add methods to read and display the student data.

Solution:-

```
import java.util.Scanner;
```

```
public class StudentDetails {
```

```

    private int idno;

    private String name;

    private String course;

    private double average;

```

```

    public StudentDetails() {

    }

```

```

    public StudentDetails(int idno, String name, String course, double average) {

        this.idno = idno;

        this.name = name;

        this.course = course;

```

```
    this.average = average;
}
```

```
public int getIdno() {
    return idno;
}
```

```
public void setIdno(int idno) {
    this.idno = idno;
}
```

```
public String getName() {
    return name;
}
```

```
public void setName(String name) {
    this.name = name;
}
```

```
public String getCourse() {
    return course;
}
```

```
public void setCourse(String course) {
    this.course = course;
}
```

```
public double getAverage() {
    return average;
}
```

```
public void setAverage(double average) {
    this.average = average;
}
```

```
public void read() {  
    Scanner scanner = new Scanner(System.in);  
  
    System.out.println("Enter student name: ");  
    name = scanner.nextLine();  
  
    System.out.println("Enter student course: ");  
    course = scanner.nextLine();  
  
    System.out.println("Enter student ID: ");  
    idno = scanner.nextInt();  
  
    System.out.println("Enter student average: ");  
    average = scanner.nextDouble();  
}
```

```
public void display() {  
    System.out.println("Student ID: " + idno);  
    System.out.println("Student name: " + name);  
    System.out.println("Student course: " + course);  
    System.out.println("Student average: " + average);  
}
```

```
public static void main(String[] args) {  
    StudentDetails student = new StudentDetails();  
    student.read();  
    student.display();  
}  
}
```

Output:

```
C:\Users\thila\OneDrive\Desktop\Anudip_Labs>javac StudentDetails.java
```

```
C:\Users\thila\OneDrive\Desktop\Anudip_Labs>java StudentDetails
```

```
Enter student name:
```

```
Lingabathula Thapaswi
```

```
Enter student course:
```

```
Computer Science Engineering
```

```
Enter student ID:
```

```
950
```

```
Enter student average:
```

```
84.1
```

```
Student ID: 950
```

```
Student name: Lingabathula Thapaswi
```

```
Student course: Computer Science Engineering
```

```
Student average: 84.1
```
