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Question 4

Incomplete answer

Marked out of 16.00

Figure 1 is supposed to be the output of Program B1 and B2. Program B1 and B2 are how to calculate the depreciation of a vehicle by given the purchase price and rate of depreciation for 3 years of average car used. Complete Program B1 and B2 by answering the following questions.

NOTE: Please take note on the following answer format for this structure questions.

Please use only one white space for separating two words. For example class name: public class
No white space between operator/keyword and two words. For example: assignment/arithmetic/dot
operators: a=10,myObj.x=25,myObj.myMethod()

```
Model: Toyota
Rate of depreciation: 0.35
Purchase Price: 75000.0
Total depreciation: 26250.0

Model: Kia
Rate of depreciation: 0.5
Purchase Price: 50000.0
Total depreciation: 25000.0
Press any key to continue . . .
```

Figure 1: Output of Program B1 and B2

- At line 13–line 18 (i–vi) in Program B1, write the second constructor that initializes all of the private instance variables of the class UsedCar by using the this keyword.
- At line 34 (vii) in Program B1, write a code to calculate the depreciation of a car. The depreciation of a car is given as the purchase price of the vehicle times with the rate of depreciation of the vehicle.

```

1. //Program B1
2. public class UsedCar {
3.     private String model;
4.     private double depreciationRate;
5.     private double purchasePrice;
6.
7.     public UsedCar() {
8.         model="";
9.         depreciationRate=0.0;
10.        purchasePrice=0.0;
11.    }
12.
13.    public UsedCar( String model , double depreciationRate , double purchasePrice ) {
14.
15.        this.model =model;
16.        this.depreciationRate =depreciationRate;
17.        this.purchasePrice =purchasePrice;
18.    }
19.
20.
21.    public String getModel() {
22.        return model;
23.    }
24.
25.    public double getDepreciationRate() {
26.        return depreciationRate;
27.    }
28.
29.    public double getPurchasePrice() {
30.        return purchasePrice;
31.    }
32.
33.    public double calcDepreciationCost() {
34.        return purchasePrice*depreciationRate ;
35.    }
36. }
37.

```

c. At line 3 – line 6 (viii– xii) in Program B2, complete the static method named `displayInfo()` to display the information of each item object and its cost.

d. At line 11 – line 12 (xiii–xiv) in Program B2, create two `UsedCar` objects as `car1` and `car2`; and assign the values as shown in Figure 1.

e. At line 14– line 15 (xv–xvi) in Program B2, call a static method named `displayInfo()` that displays the information of each item object and its depreciation cost.

```
1. //Program B2
2. public class TestDepreciation {
3.     public static void displayInfo (
4.         UsedCar
5.     obj ) {
6.         System.out.println("\n\nModel: " +
7.             obj.getModel()
8.         + "\nRate of depreciation: " +
9.             obj.getDepreciationRate()
10.        +
11.        "\nPurchase Price: " +
12.            obj.getPurchasePrice()
13.        + "\nTotal depreciation: " +
14.            obj.calDepreciationCost()
15.        );
16.     }
17.
18.     public static void main(String[] args) {
19.         UsedCar car1=new UsedCar("Toyota",0.35,75000.0) ;
20.         UsedCar car2=new UsedCar("Kia",0.5,50000.0) ;
```

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