B. Tech – Artificial Intelligence and Data Science

20AI&DS3304 – JAVA PROGRAMMING

Title: Car Rental Agency

Home Assignment
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Second Year

CAR RENTAL AGENCY

Implementation:
List of Packages and Classes used along with the Files.

List of Packages used:

- ❖ VR_cars

List of Interfaces used:

- ❖ Functional Interface funint

List of Classes used:

- ❖ VR_car_rentals(main)
- ❖ demo2
- ❖ Car_types
- ❖ EnterDetails
- ❖ Type

Files:
- ❖ Data.txt

Source Code:

Package VR_cars:

demo2.java

```java
package VR_cars;

import java.util.;

import java.lang.*;

import java.io.*;

public class demo2 {


    public void details() {

        Scanner sc = new Scanner(System.in);

        EnterDetails e = new EnterDetails();

        Car_types ct = new Car_types();
```

```
        int pp = e.Details();

        ct.car(pp);

    }

}
```

Car_types.java

```
package VR_cars;

import java.util.*;

import java.lang.*;

import java.io.*;

public class Car_types

 {

    public int car(int pp)

    {

        Scanner sc = new Scanner(System.in);

        System.out.println("---------------");

        System.out.println("1->ROLLS ROYCE");

        System.out.println("2->AUDI");

        System.out.println("3->SUZUKI");

        System.out.println("4->SWIFT");

        System.out.println("5->TATA");

        System.out.println("Enter the car type you want -> enter
corresponding numb");

        int choice1 = sc.nextInt();

        int k=choice1;

        System.out.println("Car type is succesfully selected");

        Type t = new Type();

        t.comfy(k,pp);

        return choice1;

    }

}
```

EnterDetails.java

```java
package VR_cars;


import java.util.*;

import java.lang.*;

import java.io.*;

public class EnterDetails {

    public int Details() {

        String Ptime, Pdate, Pdes, dy;

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter The Required details:");

        System.out.print("Enter Pickup Location:");

        Pdes = sc.nextLine();

        System.out.print("Enter Pickup Date:");

        Pdate = sc.nextLine();

        System.out.print("Enter Pickup Time:");

        Ptime = sc.nextLine();

        System.out.print("Enter the No.of days:");

        dy = sc.nextLine();

        Random r = new Random();

        int rand = r.nextInt(1000);

        try {

            FileWriter fw = new FileWriter("data.txt", true);

            BufferedWriter bw = new BufferedWriter(fw);

            bw.write("\n" + rand + "," + Pdes + "," + Pdate + "," +
Ptime + "," + dy);

            System.out.println("Booking Successful your id is " +
rand);

            bw.close();

        } catch (IOException e) {
```

```
                System.out.println("Booking failed!");

                e.printStackTrace();

        }

        return Integer.parseInt(dy);

    }

}
```

Type.java

```
package VR_cars;

import java.util.*;

import java.util.*;

import java.lang.*;

import java.lang.*;
```

funint interface

```
interface funint

{

    void calc(int x,int dy);

}

 public class Type {


    public void comfy(int k,int dy) {

    Scanner sc = new Scanner(System.in);

     String m1[]=new String[5];

     String m2[]=new String[5];

     String m3[]=new String[5];

     String m4[]=new String[5];

     String m5[]=new String[5];

        System.out.println("--------------");

        System.out.println("Enter Your Comfort Type");

        System.out.println("1->AC TYPE");

        System.out.println("2->NON-AC TYPE");
```

```
        int choice = sc.nextInt();

        if(choice == 1)

              {

              System.out.println("Here are Your Ac CARS Available
Models");

              if(k==1)

              {

                  m1[0]="Rolls Royce 1 (4000/- PER DAY)";

                  m1[1]="Rolls Royce 2 (5000/- PER DAY)";

                  m1[2]="Rolls Royce 3(60000/- PER DAY)";

                       System.out.println("1->"+m1[0]);

                       System.out.println("2->"+m1[1]);

                       System.out.println("3->"+m1[2]);

              }

              if(k==2)

              {

                  m2[0]="AUDI 1(4000/- PER DAY)";

                  m2[1]="AUDI 2(5000/- PER DAY)";

                  m2[2]="AUDI 3(6000/- PER DAY)";

                       System.out.println("1->"+m2[0]);

                       System.out.println("2->"+m2[1]);

                       System.out.println("3->"+m2[2]);

              }

              if(k==3)

              {

                  m3[0]="SUZUKI 1(4000/- PER DAY)";

                  m3[1]="SUZUKI 2(5000/- PER DAY)";

                  m3[2]="SUZUKI 3(6000/- PER DAY)";

                       System.out.println("1->"+m3[0]);

                       System.out.println("2->"+m3[1]);

                       System.out.println("3->"+m3[2]);
```

```
                }

                if(k==4)

                {

                     m4[0]="SWIFT 1(4000/- PER DAY)";

                     m4[1]="SWIFT 2(5000/- PER DAY)";

                     m4[2]="SWIFT 3(6000/- PER DAY)";

                          System.out.println("1->"+m4[0]);

                          System.out.println("2->"+m4[1]);

                          System.out.println("3->"+m4[2]);

                }

                if(k==5)

                {

                     m5[0]="TATA 1(4000/- PER DAY)";

                     m5[1]="TATA 2(5000/- PER DAY)";

                     m5[2]="TATA 3(6000/- PER DAY)";

                          System.out.println("1->"+m5[0]);

                          System.out.println("2->"+m5[1]);

                          System.out.println("3->"+m5[2]);

                }

                System.out.println("Enter The model of the car you
want");

                int x=sc.nextInt();

                System.out.println("Succesfully Booked............");

                funint c=(int x3,int y)->{ if(x3==1)

                                          {

                                               System.out.println("The
Total amount for Your trip is :"+4000*y);

                                          }

                                          if(x3==2)

                                          {

                                               System.out.println("The
Total amount for Your trip is :"+5000*y);
```

```
                                    }
                                    if(x3==3)
                                    {
                                          System.out.println("The
Total amount for Your trip is :"+6000*y);
                                    }


                              };
            c.calc(x,dy);


            }
      if (choice == 2)
        {
                  System.out.println("Here are Your NON-AC CARS");


            if(k==1)
            {
                  m1[0]="Non Ac Rolls Royce 1 (2000/- PER DAY)";
                  m1[1]="Non Ac Rolls Royce 2 (3000/- PER DAY)";
                  m1[2]="Non Ac Rolls Royce 3(4000/- PER DAY)";
                        System.out.println("1->"+m1[0]);
                        System.out.println("2->"+m1[1]);
                        System.out.println("3->"+m1[2]);
            }
            if(k==2)
            {
                  m2[0]="Non Ac AUDI 1(2000/- PER DAY)";
                  m2[1]="Non Ac AUDI 2(3000/- PER DAY)";
                  m2[2]="Non Ac AUDI 3(4000/- PER DAY)";
                  System.out.println("1->"+m2[0]);
                  System.out.println("2->"+m2[1]);
```

```
                System.out.println("3->"+m2[2]);

            }

            if(k==3)

            {

                m3[0]="Non Ac SUZUKI 1(2000/- PER DAY)";

                m3[1]="Non Ac SUZUKI 2(3000/- PER DAY)";

                m3[2]="Non Ac SUZUKI 3(4000/- PER DAY)";

                System.out.println("1->"+m3[0]);

                System.out.println("2->"+m3[1]);

                System.out.println("3->"+m3[2]);

            }

            if(k==4)

            {

                m4[0]="Non Ac SWIFT 1(2000/- PER DAY)";

                m4[1]="Non Ac SWIFT 2(3000/- PER DAY)";

                m4[2]="Non Ac SWIFT 3(4000/- PER DAY)";

                System.out.println("1->"+m4[0]);

                System.out.println("2->"+m4[1]);

                System.out.println("3->"+m4[2]);

            }

            if(k==5)

            {

                m5[0]="Non Ac TATA 1(2000/- PER DAY)";

                m5[1]="Non Ac TATA 2(3000/- PER DAY)";

                m5[2]="Non Ac TATA 3(4000/- PER DAY)";

                System.out.println("1->"+m5[0]);

                System.out.println("2->"+m5[1]);

                System.out.println("3->"+m5[2]);

            }

            System.out.println("Enter The model of the car you
want");
```

```
                int x1=sc.nextInt();

                System.out.println("Succesfully Booked............");

                funint f=(int x2,int y1)->

                              { if(x2==1)

                                   {

                                        System.out.println("The
Total amount for Your trip is :"+2000*y1);

                                   }

                                   if(x2==2)

                                   {

                                        System.out.println("The
Total amount for Your trip is :"+3000*y1);

                                   }

                                   if(x2==3)

                                   {

                                        System.out.println("The
Total amount for Your trip is :"+4000*y1);

                                   }


                                };

                f.calc(x1,dy);

                                }


    }

}
```

VR_car_rentals.java(main)

```
import java.util.*;

import java.lang.*;

import java.io.*;

import VR_cars.*;
```

```
class VR_car_rentals {

    public static void main(String args[]) {

        VR_cars.demo2 demo = new VR_cars.demo2();

        demo.details();

    }

}
```

Output :

```
C:\Users\hp\Desktop\java_alm>java VR_car_rentals
Enter The Required details:
Enter Pickup Location:Dubai
Enter Pickup Date:02-0!-2023
Enter Pickup Time:4:00pm
Enter the No.of days:10
Booking Successful your id is 260
---------------
1->ROLLS ROYCE
2->AUDI
3->SUZUKI
4->SWIFT
5->TATA
Enter the car type you want ->Press corresponding numb
1
Car type is succesfully selected
--------------
Enter Your Comfort Type
1->AC TYPE
2->NON-AC TYPE
1
Here are Your Ac CARS Available Models
1->Rolls Royce 1 (4000/- PER DAY)
2->Rolls Royce 2 (5000/- PER DAY)
3->Rolls Royce 3(60000/- PER DAY)
Enter The model of the car you want
2
Succesfully Booked...........
The Total amount for Your trip is :50000
```

```
C:\Users\hp\Desktop\java_alm>javac VR_car_rentals.java

C:\Users\hp\Desktop\java_alm>java VR_car_rentals
Enter The Required details:
Enter Pickup Location:Guntur
Enter Pickup Date:12-12-2022
Enter Pickup Time:10:00
Enter the No.of days:3
Booking Successful your id is 965
---------------
1->ROLLS ROYCE
2->AUDI
3->SUZUKI
4->SWIFT
5->TATA
Enter the car type you want ->Press corresponding numb
2
Car type is succesfully selected
---------------
Enter Your Comfort Type
1->AC TYPE
2->NON-AC TYPE
2
Here are Your NON-AC CARS
1->Non Ac AUDI 1(2000/- PER DAY)
2->Non Ac AUDI 2(3000/- PER DAY)
3->Non Ac AUDI 3(4000/- PER DAY)
Enter The model of the car you want
3
Succesfully Booked...........
The Total amount for Your trip is :12000
```

```
data - Notepad
File  Edit  Format  View  Help
287,vij,02-01-2022,10:00,4
825,Kanuru,2-12-2022,4:30,4
405,autonagar,03-12-2022,3:40,3
581,huf,4-5-22,12:00,3
459,Kankipadu,28-5-23,4:00pm,30
55,kanuru,12-11-2022,10:00pm,2
168,Guntur,12-03-23,10:00,3
445,ele,23-32-32,23:00,3
755,guntur,12-12-2023,10:00,4
684,eluru,12-2-23,11:00,2
965,Guntur,12-12-2022,10:00,3
260,Dubai,02-0!-2023,4:00pm,10
```

Result:

The java program for booking a car from a car rental agency is successfully completed and executed with the necessary requirements.