CAR RENTAL SERVICE

```
import java.util.Scanner;
import java.util.List;
import java.util.ArrayList;
import java.util.Arrays;
import java.util.*;
import java.time.LocalDateTime;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Date;
import static java.time.temporal.ChronoUnit.MINUTES;
import java.time.LocalTime;
import java.time.LocalDate;
import java.time.*;

public class Main
{
   static int count=0;

        public static void main(String[] args)
        {
                Scanner sc=new Scanner(System.in);

                int n,a;
                String name,phone,email,m;
                ArrayList<ArrayList<String>> users=new ArrayList<ArrayList<String>>();
                ArrayList<String> available=new ArrayList<String>();
                available.add("SUV-6 seater");
                available.add("Sedan-7 seater");
                available.add("SUV-6 seater");
                available.add("SUV-6 seater");
                available.add("Sedan-7 seater");
                available.add("hatchback-4 seater");
                ArrayList<ArrayList<String>> rented=new ArrayList<ArrayList<String>>();
                ArrayList<LocalDate> time=new ArrayList<LocalDate>();

                System.out.println("          Welcome to our car rental service!!        ");
                while(true)
                {
                System.out.println("Are you a registered user? Press 1 for yes 0 for no");
                n=sc.nextInt();
```

```
                switch(n)
                {
                case 0:
                   System.out.println("Enter your name,phone-no, e-mail");
                   name=sc.next();
                   phone=sc.next();
                   email=sc.next();
                   System.out.println("Do you wish to be our regular customer or premium
customer?");
                   m=sc.next();
                   addUser(users,name,phone,email,m);
                   break;

                case 1:

                   System.out.println("Do you wish to delete or update your details or rent a
car?");
                   System.out.println("Press 1 to update, 2 to delete and 3 to rent or return cars");
                   a=sc.nextInt();
                   if(a==1)
                   updateUser(users);
                   else if(a==2)
                   deleteUser(users);
                   else if(a==3)
                   rentCar(users,available,rented,time);
                   else if(a==4)
                   addCars(available);
                   else
                   System.out.println("Enter a valid choice");

                }
                }

        }
        public static void addUser(ArrayList<ArrayList<String>> users1,String name1,String
phone1,String email1, String type)
        {
           users1.add(new ArrayList<String>(Arrays.asList(name1,phone1,email1,type)));
           System.out.println("Added users:");
           System.out.println(users1);

        }
        public static void updateUser(ArrayList<ArrayList<String>> users2)
        {
```

```
            int l,i,j;
            String k;
            Scanner sc1=new Scanner(System.in);
            System.out.println("Displaying existing user details");
            for(ArrayList<String> val:users2)
            System.out.println(val);
            System.out.println("Enter the phone number of user whose details are  to be
modified");
            k=sc1.next();
            for(i=0;i<users2.size();i++)
            {
               for(j=0;j<users2.get(i).size();j++)
               {
                  if(((users2.get(i).get(j)).compareTo(k))==0)
                  {

                     System.out.println("Enter the details you want to update");

                     String name2=sc1.next();
                     String phone2=sc1.next();
                     String email2=sc1.next();
                     String choice2=sc1.next();
                     users2.set(i,new
ArrayList<String>(Arrays.asList(name2,phone2,email2,choice2)));
                     System.out.println(users2);
                     break;
                  }

               }
               break;
         }
         }
         public static void deleteUser(ArrayList<ArrayList<String>> users3)
         {
            int m,i,j;
            String n;
            Scanner sc2=new Scanner(System.in);
            System.out.println("Displaying user details");
            for(i=0;i<users3.size();i++)
            System.out.println(i+":"+users3.get(i));
            System.out.println("Enter the phone number of user whose details are to be deleted");
            n=sc2.next();
            for(i=0;i<users3.size();i++)
            {
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                for(j=0;j<users3.get(i).size();j++)
                {
                    if(((users3.get(i).get(j)).compareTo(n))==0)
                    {
                        System.out.println("Are you sure you want to delete? Press 0 to continue, 1 to
abort");
                         m=sc2.nextInt();
                        if(m==0)
                        users3.remove(users3.get(i));
                        System.out.println(users3);
                        break;
                    }

                }
               break;
             }


        }
        public static void rentCar(ArrayList<ArrayList<String>> users4,ArrayList<String>
available1,ArrayList<ArrayList<String>> rented,ArrayList<LocalDate> time1)
        {
            Scanner sc5=new Scanner(System.in);
            SimpleDateFormat format = new SimpleDateFormat("HH:mm:ss");
            int ch;
            LocalDate dt,du,dv,timediff;
            System.out.println("Enter 1 to rent car , Enter 2 to return car");
            ch=sc5.nextInt();
            switch(ch)
            {
            case 1:
           int i,ind;
            String cont;
            Scanner sc3=new Scanner(System.in);
            System.out.println("Available cars:");
            for(i=0;i<available1.size();i++)
            System.out.println(i+" :"+available1.get(i));
            System.out.println("Showing details of existing users");
            for(i=0;i<users4.size();i++)
            System.out.println(i+":"+users4.get(i));
            System.out.println("Enter the phone number of customer who will rent the car");
            cont=sc3.next();
            System.out.println("Enter the serial number of car that you want to rent");
            ind=sc3.nextInt();
```

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        String car=available1.get(ind);
        rented.add(new ArrayList<String>(Arrays.asList(cont,car)));
        dt=LocalDate.now();
        time1.add(dt);
        System.out.println(rented);
        available1.remove(ind);
        System.out.println(“Available list of cars:”);
        System.out.println(available1);
        break;

        case 2:
           Scanner sci=new Scanner(System.in);
           int ind1;
           int typecust;
           double discprice=0.0;
        System.out.println("Displaying rented cars");
        for( i=0;i<rented.size();i++)
        System.out.println(i+":"+rented.get(i));
        System.out.println("Showing the time at which car was rented");
        for(int j=0;j<time1.size();j++)
        System.out.println(time1);
        System.out.println("List of users:");
        for(int k=0;k<users4.size();k++)
        System.out.println(k+":"+users4.get(k));
        System.out.println("Enter the serial number of the car that is to be returned");
        ind1=sci.nextInt();
        du=LocalDate.now();
        dv=time1.get(ind1);
        Period diff
    = Period
          .between(dv,
                du);
int duration=(diff.getDays())+1;
int totalprice=2000*duration;
System.out.println("Press 0 for regular, 1 for premium");
typecust=sci.nextInt();
if(typecust==0)
{
    if(totalprice>0 && totalprice<=4000)
    discprice=totalprice-((10*totalprice)/100);
    else if(totalprice>4000 && totalprice<=8000 )
    discprice=totalprice-((15*totalprice)/100);
    else if(totalprice>8000 && totalprice<=12000)
    discprice=totalprice-((20*totalprice)/100);
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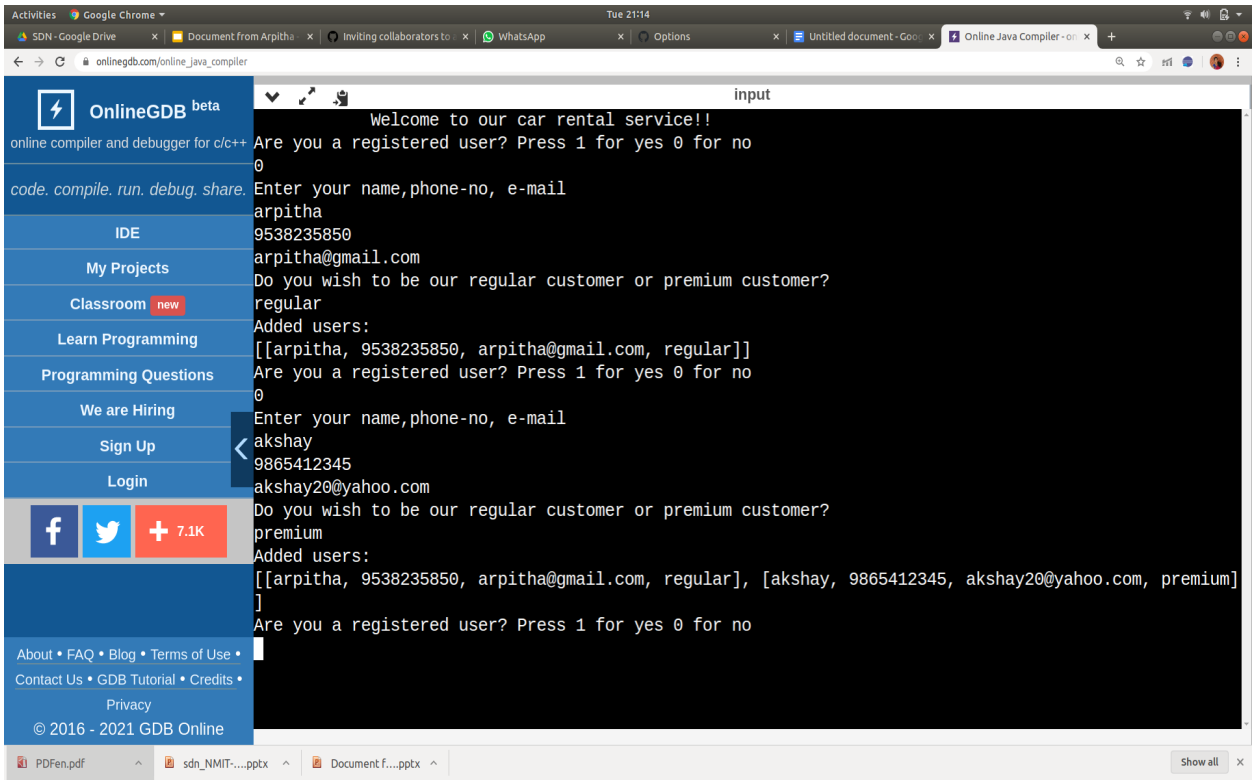
            else
            discprice=totalprice-((25*totalprice)/100);
            String ph=rented.get(ind1).get(0);
            System.out.println("The bill amount for contact number:"+ph+"is:"+discprice);
            available1.add(rented.get(ind1).get(1));
            rented.remove(ind1);

        }
        else
        {
            if(totalprice>0 && totalprice<=5000)
            discprice=totalprice;
            else if(totalprice>5000 && totalprice<=10000 )
            discprice=totalprice-((10*totalprice)/100);
            else
            discprice=totalprice-((20*totalprice)/100);
            String ph=rented.get(ind1).get(0);
            System.out.println("The bill amount for contact number: "+ph+" is: "+discprice);
            available1.add(rented.get(ind1).get(1));
            rented.remove(ind1);
        }


            }

            }
            public static void addCars(ArrayList<String> available1)
            {
                String newcar;
                System.out.println("Enter the name of the car along with its capacity");
                Scanner sc4=new Scanner(System.in);
                newcar=sc4.next();
                available1.add(newcar);
                System.out.println("Available list of cars:");
                System.out.println(available1);
            }

}
```


input
Welcome to our car rental service!!
Are you a registered user? Press 1 for yes 0 for no
0
Enter your name,phone-no, e-mail
arpitha
9538235850
arpitha@gmail.com
Do you wish to be our regular customer or premium customer?
regular
Added users:
[[arpitha, 9538235850, arpitha@gmail.com, regular]]
Are you a registered user? Press 1 for yes 0 for no
0
Enter your name,phone-no, e-mail
akshay
9865412345
akshay20@yahoo.com
Do you wish to be our regular customer or premium customer?
premium
Added users:
[[arpitha, 9538235850, arpitha@gmail.com, regular], [akshay, 9865412345, akshay20@yahoo.com, premium]
]
Are you a registered user? Press 1 for yes 0 for no
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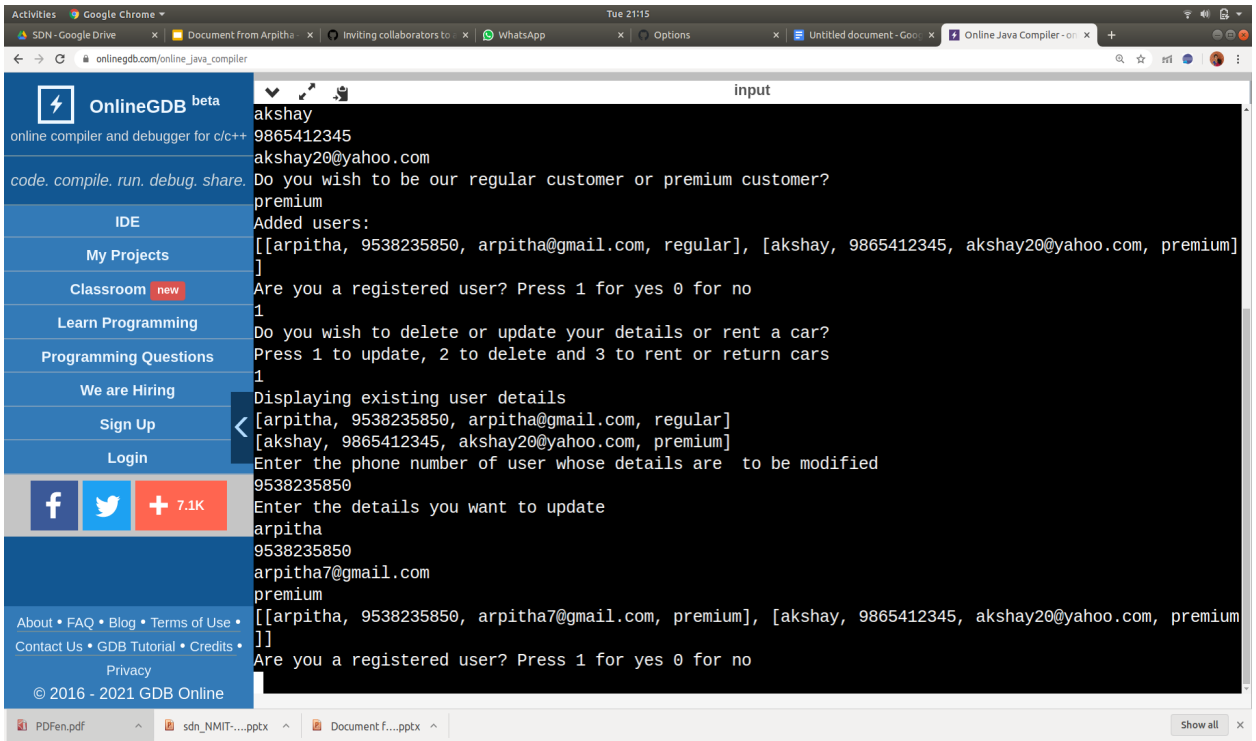
input
akshay
9865412345
akshay20@yahoo.com
Do you wish to be our regular customer or premium customer?
premium
Added users:
[[arpitha, 9538235850, arpitha@gmail.com, regular], [akshay, 9865412345, akshay20@yahoo.com, premium]
]
Are you a registered user? Press 1 for yes 0 for no
1
Do you wish to delete or update your details or rent a car?
Press 1 to update, 2 to delete and 3 to rent or return cars
1
Displaying existing user details
[arpitha, 9538235850, arpitha@gmail.com, regular]
[akshay, 9865412345, akshay20@yahoo.com, premium]
Enter the phone number of user whose details are to be modified
9538235850
Enter the details you want to update
arpitha
9538235850
arpitha7@gmail.com
premium
[[arpitha, 9538235850, arpitha7@gmail.com, premium], [akshay, 9865412345, akshay20@yahoo.com, premium
]]
Are you a registered user? Press 1 for yes 0 for no
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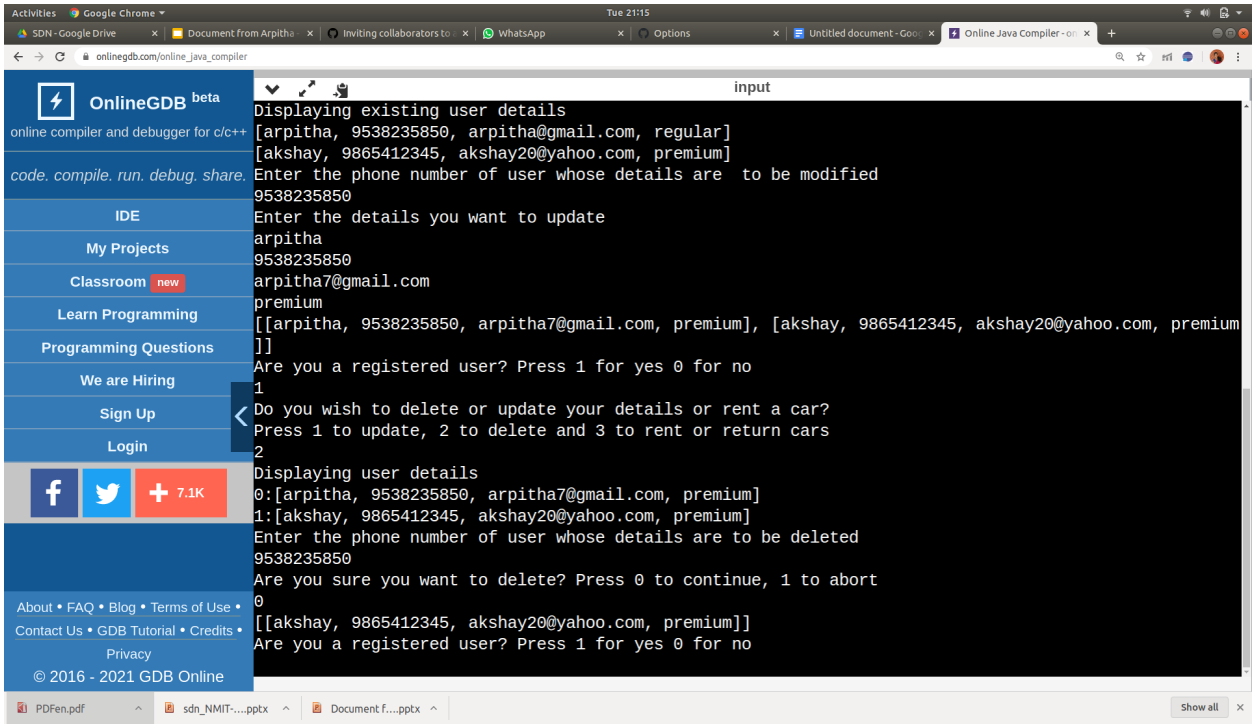
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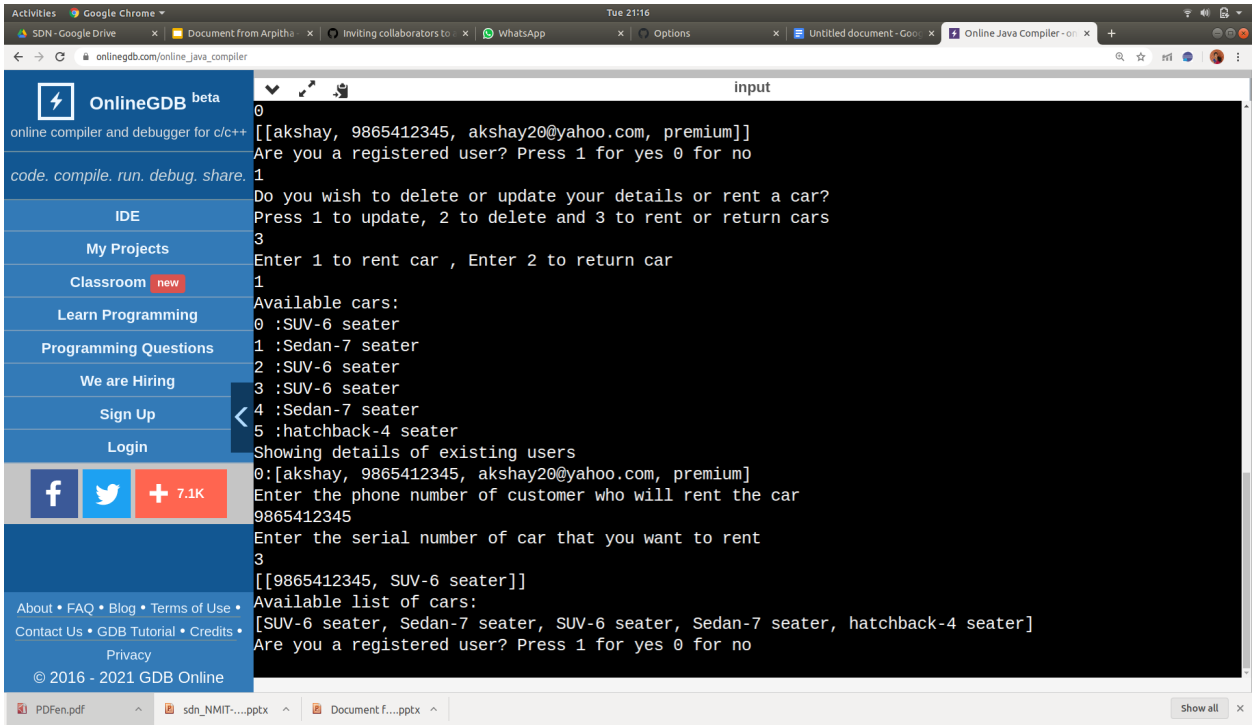
input
Displaying existing user details
[arpitha, 9538235850, arpitha@gmail.com, regular]
[akshay, 9865412345, akshay20@yahoo.com, premium]
Enter the phone number of user whose details are to be modified
9538235850
Enter the details you want to update
arpitha
9538235850
arpitha7@gmail.com
premium
[[arpitha, 9538235850, arpitha7@gmail.com, premium], [akshay, 9865412345, akshay20@yahoo.com, premium
]]
Are you a registered user? Press 1 for yes 0 for no
1
Do you wish to delete or update your details or rent a car?
Press 1 to update, 2 to delete and 3 to rent or return cars
2
Displaying user details
0:[arpitha, 9538235850, arpitha7@gmail.com, premium]
1:[akshay, 9865412345, akshay20@yahoo.com, premium]
Enter the phone number of user whose details are to be deleted
9538235850
Are you sure you want to delete? Press 0 to continue, 1 to abort
0
[[akshay, 9865412345, akshay20@yahoo.com, premium]]
Are you a registered user? Press 1 for yes 0 for no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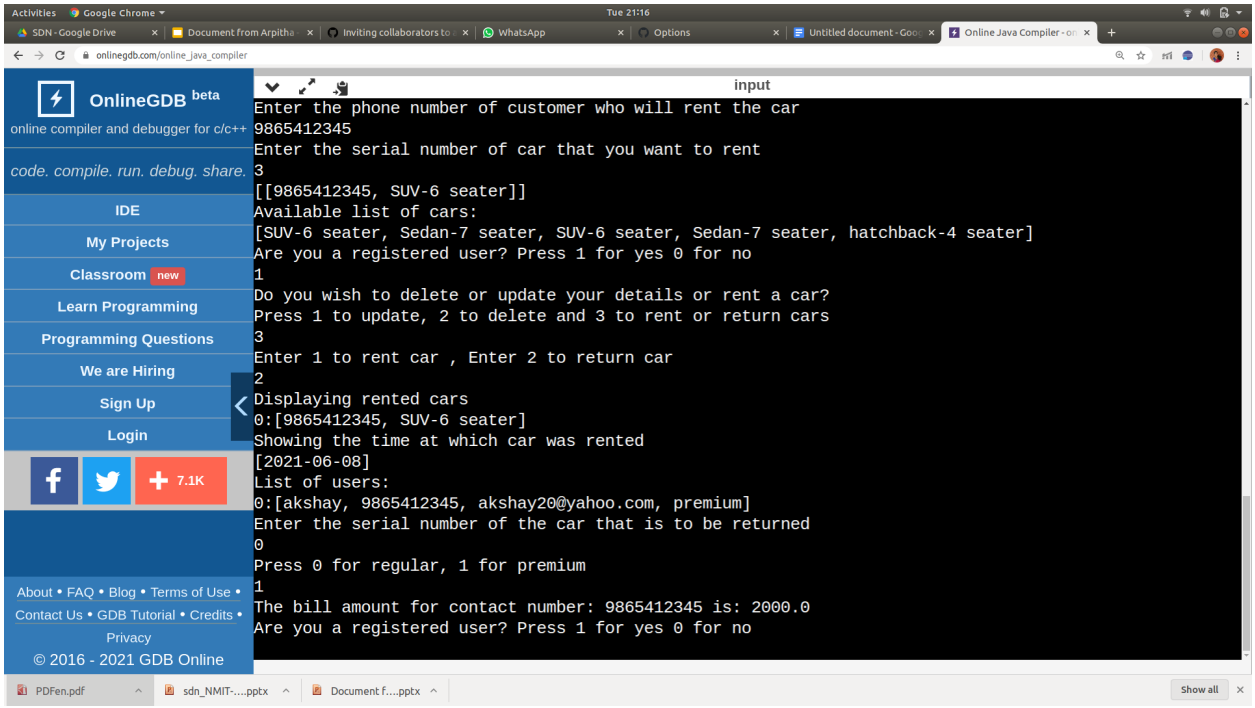
input
0
[[akshay, 9865412345, akshay20@yahoo.com, premium]]
Are you a registered user? Press 1 for yes 0 for no
1
Do you wish to delete or update your details or rent a car?
Press 1 to update, 2 to delete and 3 to rent or return cars
3
Enter 1 to rent car , Enter 2 to return car
1
Available cars:
0 :SUV-6 seater
1 :Sedan-7 seater
2 :SUV-6 seater
3 :SUV-6 seater
4 :Sedan-7 seater
5 :hatchback-4 seater
Showing details of existing users
0:[akshay, 9865412345, akshay20@yahoo.com, premium]
Enter the phone number of customer who will rent the car
9865412345
Enter the serial number of car that you want to rent
3
[[9865412345, SUV-6 seater]]
Available list of cars:
[SUV-6 seater, Sedan-7 seater, SUV-6 seater, Sedan-7 seater, hatchback-4 seater]
Are you a registered user? Press 1 for yes 0 for no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input
Enter the phone number of customer who will rent the car
9865412345
Enter the serial number of car that you want to rent
3
[[9865412345, SUV-6 seater]]
Available list of cars:
[SUV-6 seater, Sedan-7 seater, SUV-6 seater, Sedan-7 seater, hatchback-4 seater]
Are you a registered user? Press 1 for yes 0 for no
1
Do you wish to delete or update your details or rent a car?
Press 1 to update, 2 to delete and 3 to rent or return cars
3
Enter 1 to rent car , Enter 2 to return car
2
Displaying rented cars
0:[9865412345, SUV-6 seater]
Showing the time at which car was rented
[2021-06-08]
List of users:
0:[akshay, 9865412345, akshay20@yahoo.com, premium]
Enter the serial number of the car that is to be returned
0
Press 0 for regular, 1 for premium
1
The bill amount for contact number: 9865412345 is: 2000.0
Are you a registered user? Press 1 for yes 0 for no