import java.util.\*;

import java.text.SimpleDateFormat;

import java.time.LocalDate;

import java.time.LocalTime;

//import Tulsi.Product;

class Product{

private String ID;

private String name;

private String description;

private double price;

Product(String ID,String name,String description,double price){

this.ID=ID;

this.name=name;

this.description=description;

this.price=price;

}

public String toString(){

return (ID+"\t"+name+"\t"+description+"\t"+price);

}

static int numberOfProduct;

static{

numberOfProduct=0;

}

public static int getNumberOfProduct(){

return numberOfProduct;

}

{

numberOfProduct++;

}

public String getID(){return ID;}

public String getName(){return name;}

public String getDesc(){return description;}

public double getPrice() {return price;}

public void setID(String ID){ this.ID=ID; }

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

public void setDesc(String description){ this.description=description; }

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

}

class Cloths extends Product{

private String size;

private String discount;

Cloths(String ID, String name, String description,double price,String size,String discount) {

super(ID, name, description,price);

this.size=size;

this.discount=discount;

}

//public String getCate(){return category;}

public String getSize(){return size;}

public String getDisc(){return discount;}

// public void setCat(String category){ this.category=category; }

//public void setPrice(double price){ this.price=price; }

public void setSize(String size){ this.size=size;}

public void setDisc(String discount){ this.discount=discount; }

public String toString(){

return (super.toString()+"\t "+size+"\t "+discount);

}

}

class M\_cloths extends Cloths{

private String p\_type;

M\_cloths(String ID, String name, String description, double price, String size, String discount,String p\_type) {

super(ID, name, description, price, size, discount);

this.p\_type=p\_type;

}

public String getType(){return p\_type;}

public void setType(String p\_type){ this.p\_type=p\_type; }

public String toString() {

return (super.toString()+"\t\t "+p\_type);

}

}

class F\_cloths extends Cloths{

private String p\_type;

F\_cloths(String ID, String name, String description, double price, String size, String discount,String p\_type) {

super(ID, name, description, price, size, discount);

this.p\_type=p\_type;

}

public String getType(){return p\_type;}

public void setType(String p\_type){ this.p\_type=p\_type; }

public String toString() {

return (super.toString()+"\t\t "+p\_type);

}

}

class K\_cloths extends Cloths{

private String p\_type;

K\_cloths(String ID, String name, String description, double price, String size, String discount,String p\_type) {

super(ID, name, description, price, size, discount);

this.p\_type=p\_type;

}

public String getType(){return p\_type;}

public void setType(String p\_type){ this.p\_type=p\_type; }

public String toString() {

return (super.toString()+"\t\t "+p\_type);

}

}

class Address {

private String add\_line1;

private String add\_line2;

private String city;

private String pincode;

// Adress(int c\_id, String c\_name, String c\_pno1, String c\_pno2, String email, Date dob,String add\_line1,String add\_line2,String city,String pincode) {

//

// this.add\_line1=add\_line1;

// this.add\_line2=add\_line2;

// this.city=city;

// this.pincode=pincode;

// }

Address(String add\_line1,String add\_line2,String city,String pincode){

this.add\_line1=add\_line1;

this.add\_line2=add\_line2;

this.city=city;

this.pincode=pincode;

}

public String getAddline1() {return add\_line1;}

public String getAddline2() {return add\_line2;}

public String getCity() {return city;}

public String getPcode() {return pincode;}

public void setAddline1(String add\_line1){this.add\_line1=add\_line1;}

public void setAddline2(String add\_line2){this.add\_line2=add\_line2;}

public void setCity(String city){this.city=city;}

public void setPcode(String pincode){this.pincode=pincode;}

public String toString() {

return (add\_line1+"\t"+add\_line2+"\t"+city+"\t"+pincode);

}

}

class Customer{

private static int counter=0;

private int c\_id;

private String c\_name;

private String c\_pno1;

private String c\_pno2;

private String email;

private String dob;

private Address ad;

Customer( int c\_id,String c\_name,String c\_pno1,String c\_pno2,String email,String dob,Address ad){

this.c\_id=counter++;

this.c\_name=c\_name;

this.c\_pno1=c\_pno1;

this.c\_pno2=c\_pno2;

this.email=email;

this.dob=dob;

this.ad=ad;

}

public int getCid() {return c\_id;}

public String getCname() {return c\_name;}

public String getCpno1() {return c\_pno1;}

public String getCpno2() {return c\_pno2;}

public String getEmail() {return email;}

public String getDob() {return dob;}

public Address getAddress() {return ad;}

public void setCid(int c\_id){this.c\_id=c\_id;}

public void setCname(String c\_name){this.c\_name=c\_name;}

public void setCpno1(String c\_pno1){this.c\_pno1=c\_pno1;}

public void setCpno2(String c\_pno2){this.c\_pno2=c\_pno2;}

public void setEmail(String email){this.email=email;}

public void setDob(String quan){this.dob=dob;}

public void setAddress(Address ad) {this.ad=ad;}

public String toString() {

return (c\_id+"\t"+c\_name+"\t"+c\_pno1+"\t"+c\_pno2+"\t"+email+"\t"+dob+"\t"+ad);

}

}

class OrderItems{

private String p\_id;

private int quan;

OrderItems(String p\_id,int quan){

this.p\_id=p\_id;

this.quan=quan;

}

public String getPid(){return p\_id;}

public int getQuantitiy(){return quan;}

public void setPid(String p\_name){this.p\_id=p\_name;}

public void setQuantity(int quan){this.quan=quan;}

public String toString() {

return(p\_id+"\t"+quan);

}

}

class Order extends OrderItems{

private UUID o\_id;

private LocalDate o\_date;

private LocalTime o\_time;

Order(String p\_id,int quan,UUID o\_id,LocalDate o\_date,LocalTime o\_time) {

super(p\_id, quan);

this.o\_id=o\_id;

this.o\_date=o\_date;

this.o\_time=o\_time;

}

public UUID getOid(){return o\_id;}

public void setOid(UUID o\_id) {this.o\_id=o\_id;}

public String toString() {

return (super.toString()+"\t"+o\_id+"\t"+o\_date+"\t"+o\_time);

}

}

public class ProductDriver{

static void showMenu(Product p\_arr[]) {

System.out.println("Id\tName\tDes\t price\t size\t Discount\t Category");

for(int i=0; i < p\_arr.length; i++) {

System.out.println(p\_arr[i]);

}

}

public static void main(String args[]){

//variable used to make bill

String id = null;

String productName = null;

int quantity = 0;

double price = 0.0;

double totalPrice = 0.0;

double overAllPrice = 0.0;

double cgst, sgst, subtotal=0.0, discount=0.0;

char Choice = '\0';

char Choice2='\0';

char Choice3='\0';

Scanner scan = new Scanner(System.in);

//format for bill

System.out.println("\t\t\t\t--------------------Invoice-----------------");

System.out.println("\t\t\t\t\t "+" "+"pentaloons cloth Shop");

System.out.println("\t\t\t\t\t3/98 Mecrobertganj New Mumbai");

System.out.println("\t\t\t\t\t" +" " +"Opposite Metro Walk");

System.out.println("GSTIN: 03AWBPP8756K592"+"\t\t\t\t\t\t\tContact: (+91) 9988776655");

//format of date and time

SimpleDateFormat formatter = new SimpleDateFormat("dd/MM/yyyy HH:mm:ss");

Date date = new Date();

Calendar calendar = Calendar.getInstance();

String[] days = new String[] { "Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday" };

//prints current date and time

System.out.println("Date: "+formatter.format(date)+" "+days[calendar.get(Calendar.DAY\_OF\_WEEK) - 1]+"\t\t\t\t\t\t (+91) 9998887770");

//customer array

Customer c\_arr[]=new Customer[20];

int k=0;

//product details

Product p\_arr[] = new Product[12];

p\_arr[0]=new M\_cloths("m1","jeans","trendy",400,"L","30%","Male");

p\_arr[1]=new M\_cloths("m2","shirt","good",600,"M","40%","Male");

p\_arr[2]=new M\_cloths("m3","t-shirt","nice",600,"L","10%","Male");

p\_arr[3]=new M\_cloths("m4","jeans","nice",900,"XL","20%","Male");

p\_arr[4]=new M\_cloths("f1","jeans","funky",600,"M","50%","Female");

p\_arr[5]=new M\_cloths("f2","dress","elegant",500,"L","15%","Female");

p\_arr[6]=new M\_cloths("f3","top","printed",400,"L","30%","Female");

p\_arr[7]=new M\_cloths("f4","jeans","casual",200,"S","40%","Kids");

p\_arr[8]=new K\_cloths("k1","froak","good",900,"M","50%","Kids");

p\_arr[9]=new K\_cloths("k2","Shorts","fancy",600,"M","25%","Kids");

p\_arr[10]=new K\_cloths("k3","top","V-neck",400,"L","10%","Kids");

p\_arr[11]=new K\_cloths("k4","jeans","comfy",500,"XS","40%","Kids");

//customer details

do {

boolean success =false;

Scanner s = new Scanner(System.in);

System.out.print("Enter your name:");

String custName = s.nextLine();

System.out.println("Hello " + custName + ", welcome to our store. Are you here first time? (Type Y or N)");

Choice2 = scan.next().charAt(0);

//read remaining characters, don't store (no use)

scan.nextLine();

if(Choice2 =='y' || Choice2 =='Y') {

success=true;

System.out.println("Enter your primary phone number ");

String pri\_no=s.nextLine();

System.out.println("Enter your secondary phone number ");

String sec\_no=s.nextLine();

System.out.println("Enter your email address ");

String email\_add=s.nextLine();

System.out.println("Enter your date of birth ");

String Bdate=s.nextLine();

System.out.println("Enter your Address\_line1 ");

String Aline1=s.nextLine();

System.out.println("Enter your Address line2 ");

String Aline2=s.nextLine();

System.out.println("Enter your city ");

String c\_city=s.nextLine();

System.out.println("Enter your pincode ");

String pin=s.nextLine();

Address address=new Address(Aline1,Aline2,c\_city,pin);

c\_arr[k]= new Customer(k,custName,pri\_no,sec\_no,email\_add,Bdate,address);

k++;

}

else {

System.out.println("Enter your customer id");

int cus\_id=s.nextInt();

// try {

for(int i=0;i<20;i++) {

if( cus\_id==c\_arr[i].getCid() ){

System.out.println(cus\_id);

System.out.println("cid\tName\tPrimary PhoneNo\tSecondary PhoneNo\tEmail address\tDate of Birth\t Address");

c\_arr[i].toString();

}

}

//}catch(Exception e) {

//System.out.println("Enter correct product id");

//}

}

if(success) {

System.out.println("Itemlist");

showMenu(p\_arr);

//choose product

OrderItems oi\_arr[] = new OrderItems[12];

Order o\_arr[]=new Order[20];

int m=0;

do {

System.out.println("Enter product id you want to purchase");

String pid=scan.nextLine();

System.out.println("Enter product quantity");

int p\_quan=scan.nextInt();

UUID uuid=UUID.randomUUID();

LocalDate l\_date=LocalDate.now();

LocalTime l\_time=LocalTime.now();

for(int i=0;i<p\_arr.length;i++) {

if(p\_arr[i].getID().equals(pid)) {

oi\_arr[m]=new OrderItems(p\_arr[i].getID(),p\_quan);

o\_arr[m]=new Order(p\_arr[i].getID(),p\_quan,uuid,l\_date,l\_time);

//calculate total price for a particular product

totalPrice=p\_arr[i].getPrice()\*p\_quan;

}

}

//calculates overall price

overAllPrice = overAllPrice + totalPrice;

// ask for continue shopping?

System.out.print("Want to add more items? (y or n): ");

//reads a character Y or N

Choice = scan.next().charAt(0);

//read remaining characters, don't store (no use)

scan.nextLine();

m++;

}

while(Choice == 'y' || Choice == 'Y');

//price calculation

System.out.println("\n\t\t\t\t\t\t\t\t\t\tTotal Amount (Rs.) " +overAllPrice);

//calculating tax

sgst=overAllPrice\*12/100;

System.out.println("\n\t\t\t\t\t\t\t\t\t\t SGST (%) "+sgst);

cgst=overAllPrice\*12/100;

System.out.println("\n\t\t\t\t\t\t\t\t\t\t CGST (%) "+cgst);

//calculating amount to be paid by buyer

System.out.println("\n\t\t\t\t\t\t\t\t\t\t Invoice Total " +(overAllPrice+cgst+sgst));

System.out.println("\t\t\t\t----------------Thank You for Shopping!!-----------------");

System.out.println("\t\t\t\t Visit Again");

System.out.println("Total number of product is "+ p\_arr[0].getNumberOfProduct());

System.out.println(c\_arr[0].getCid());

System.out.print("Want to purchase again? (y or n): ");

//reads a character Y or N

Choice3 = scan.next().charAt(0);

//read remaining characters, don't store (no use)

scan.nextLine();

}

}while(Choice3=='y'||Choice=='Y');

}

}