

```
package javaapplication28 ;           //javaapplication28

import javax.swing.JOptionPane;

import java.util.Scanner;

public class JavaApplication28 {

    public static void main(String[] args) {

        //new JavaApplication28();

        String names=JOptionPane.showInputDialog("enter your name");

        JOptionPane.showMessageDialog(null,"hello" +names);

        int customersid=Integer.parseInt(JOptionPane.showInputDialog("enter your customerid"));

        JOptionPane.showMessageDialog(null, "your"+customersid);

        int sizes=Integer.parseInt(JOptionPane.showInputDialog("enter your size"));

        JOptionPane.showMessageDialog(null, "your"+sizes);

        String address=JOptionPane.showInputDialog("enter your address11");

        JOptionPane.showMessageDialog(null,"hello" +address);

        Scanner i=new Scanner(System.in);

        System.out.println("enter the number of products you want to enter");

        //int size=i.nextInt();

        System.out.println("enter your customerid");

        //int customerid=i.nextInt();

        System.out.println("enter your name");

        //String name=i.next();
```

```

        System.out.println("enter your address");

        //String address=i.next();

        Customer customer=new Customer(customersid,names,address);

        Cart c=new Cart(customersid,sizes);

        c.nproducts=sizes;

        //System.out.println("the length of array"+c.prod.length+"the size is"+c.nproducts);

        ClothingProduct p1=new ClothingProduct("XXL","silk",2,"t_shirt",19.99);

        ElectronicProduct p2=new ElectronicProduct("samsung",1,1,"smartphone",599.99);

        BookProduct p3=new BookProduct("O Reily","XPublications",3,"OOP",39.99);

        Product[] prods=c.placeorder();

        double totalprice=c.calculateprice(prods);

        Order order=new Order(customersid,1,totalprice);

        order.printorderinfo(prods);

    }

}

```

```

package javaapplication28;

```

```

public class Product {

    protected int productid;

    protected String productname;

    protected double price;

    public Product(int productid, String productname, double price) {

```

```
        this.productid = productid;

        this.productname = productname;

        this.price = price;
    }
```

```
    public int getProductid() {

        return productid;
    }
```

```
    public void setProductid(int productid) {

        this.productid = productid;
    }
```

```
    public String getName() {

        return productname;
    }
```

```
    public void setName(String name) {

        this.productname = name;
    }
```

```
    public double getPrice() {

        return price;
    }
```

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

```
package javaapplication28;
```

```
public class ElectronicProduct extends Product {  
    private String brand;  
    private int warryperiod;  
  
    public ElectronicProduct(int productid, String productname, double price) {  
        super(productid, productname, price);  
    }  
}
```

```
    public ElectronicProduct(String brand, int warryperiod, int productid, String productname, double  
price) {  
        super(productid, productname, price);  
        this.brand = brand;  
        this.warryperiod = warryperiod;  
    }  
}
```

```
    public String getBrand() {  
        return brand;  
    }  
}
```

```
}
```

```
public void setBrand(String brand) {
```

```
    this.brand = brand;
```

```
}
```

```
public int getWarryperiod() {
```

```
    return warryperiod;
```

```
}
```

```
public void setWarryperiod(int warryperiod) {
```

```
    this.warryperiod = warryperiod;
```

```
}
```

```
}
```

```
package javaapplication28;
```

```
public class ClothingProduct extends Product {
```

```
    private String size;
```

```
    private String fabric;
```

```
    public ClothingProduct(int productid, String productname, double price) {
```

```
        super(productid, productname, price);
```

```
}
```

```
public ClothingProduct(String size, String fabric, int productid, String productname, double price) {  
    super(productid, productname, price);  
    this.size = size;  
    this.fabric = fabric;  
}
```

```
public String getSize() {  
    return size;  
}
```

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

```
public String getFabric() {  
    return fabric;  
}
```

```
public void setFabric(String fabric) {  
    this.fabric = fabric;  
}
```

```
}  
  
/*  
    * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license  
    * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template  
    */
```

```
package javaapplication28;
```

```
/**  
 *  
 * @author dell  
 */
```

```
public class BookProduct extends Product{
```

```
    private String author,publisher;
```

```
    public BookProduct(int productid, String productname, double price) {
```

```
        super(productid, productname, price);
```

```
    }
```

```
    public BookProduct(String author, String publisher, int productid, String productname, double  
price) {
```

```
        super(productid, productname, price);
```

```
        this.author = author;
```

```
        this.publisher = publisher;
```

```
    }
```

```
public String getAuthor() {  
    return author;  
}
```

```
public void setAuthor(String author) {  
    this.author = author;  
}
```

```
public String getPublisher() {  
    return publisher;  
}
```

```
public void setPublisher(String publisher) {  
    this.publisher = publisher;  
}
```

```
}
```

```
/*
```

```
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
```

```
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
```

```
*/
```

```
package javaapplication28;
```

```
/**
```


*

* @author dell

*/

```
public class Customer {
```

```
    private int courseid;
```

```
    private String name,address;
```

```
    public Customer(int courseid, String name, String address) {
```

```
        this.courseid = courseid;
```

```
        this.name = name;
```

```
        this.address = address;
```

```
    }
```

```
    public int getCourseid() {
```

```
        return courseid;
```

```
    }
```

```
    public void setCourseid(int courseid) {
```

```
        this.courseid = courseid;
```

```
    }
```

```
    public String getName() {
```

```
        return name;
```

```
    }
```

```
        public void setName(String name) {  
            this.name = name;  
        }  
  
        public String getAddress() {  
            return address;  
        }  
  
        public void setAddress(String address) {  
            this.address = address;  
        }  
    }  
  
package javaapplication28;  
  
import javax.swing.JOptionPane;  
  
import java.util.Scanner;  
  
public class Cart {  
    private int customerid;  
    private int nproducts=4;  
    Product[] prod;  
  
    public Cart(int customerid, int nproducts) {  
        this.customerid = customerid;
```

```
        this.nproducts = nproducts;

    }

    public int getCustomerid() {

        return customerid;

    }

    public void setCustomerid(int customerid) {

        this.customerid = customerid;

    }

    public int getNproducts() {

        return nproducts;

    }

    public void setNproducts(int nproducts) {

        this.nproducts = nproducts;

    }

    public Product[] getProd() {

        return prod;

    }
```

```
public void setProd(Product[] prod) {  
    this.prod = prod;  
}  
  
public void addproduct(Product p,Product[] prods){  
    for(int i=0;i<prods.length;i++){  
        if(prods[i]==null){  
            prods[i]=p;  
            break;  
        }  
    }  
  
}  
  
public void removeproduct(Product p,Product[] prods){  
    boolean flag=true;  
    for(int i=0;i<prods.length;i++){  
        if(prods[i]==p){  
            flag=true;  
        }  
        else{  
            System.out.println("this product doesnot exist in the cart");  
            flag=false;  
            break;  
        }  
    }  
}
```

```

        Product[] newprod=new Product[prods.length-1];

        int m=0;

        if(flag){

            for(int i=0;i<newprod.length;i++){

                if(newprod[m]!=prods[i]){

                    newprod[m]=prods[i];

                    m++;

                }

                else{

                    continue;

                }

            }

        }

    }
}

```

```

public double calculateprice(Product[] prods){

    double prices=0;

    for(int i=0;i<prods.length;i++){

        prices+=prods[i].getPrice();

    }

    return prices;

}

```

```

public Product[] placeorder(){

    prod=new Product[nproducts];

```

```

ClothingProduct p1=new ClothingProduct("medium","coton",2,"smartphone",19.99);

ElectronicProduct p2=new ElectronicProduct("samsung",1,1,"smartphone",599.99);

BookProduct p3=new BookProduct("OReily","XPublication",3,"OOP",39.99);

Scanner input=new Scanner(System.in);

int choice2,choice;

//for(int j=0;j<4;j++){

for(int j=0;j<prod.length;j++){

    //System.out.println("trial number "+j);

    System.out.println("enter your choice\n1.smartphone\n2.t_shirt\n3.OOP");

    choice=Integer.parseInt(JOptionPane.showInputDialog("enter your
choice\n1.smartphone\n2.t_shirt\n3.OOP"));

    JOptionPane.showMessageDialog(null, "you chose product number :"+choice);


    switch (choice){

        case 1:

            System.out.println("enter your choice\n1.addproduct\n2.removeproduct");

            choice2=Integer.parseInt(JOptionPane.showInputDialog("enter your
choice\n1.addproduct\n2.removeproduct"));

            JOptionPane.showMessageDialog(null, "you added :"+choice);

            switch (choice2){

                case 1:

                    addproduct(p1,prod);

                    break;

                case 2:

                    removeproduct(p1,prod);

                    break;

```

```

    }

    break;

case 2:

    System.out.println("enter your choice\n1.addproduct\n2.removeproduct");

    choice2=Integer.parseInt(JOptionPane.showInputDialog("enter your
choice\n1.addproduct\n2.removeproduct"));

    JOptionPane.showMessageDialog(null, "you added :"+choice);

    switch (choice2){

        case 1:

            addproduct(p2,prod);

            break;

        case 2:

            removeproduct(p2,prod);

            break;

    }

    break;

case 3:

    System.out.println("enter your
choice\n1.addproduct\n2.removeproduct");

    choice2=Integer.parseInt(JOptionPane.showInputDialog("enter your
choice\n1.addproduct\n2.removeproduct"));

    JOptionPane.showMessageDialog(null, "you added :"+choice);

    switch (choice2){

        case 1:

            addproduct(p3,prod);

            break;

        case 2:

```

```
                removeproduct(p3,prod);
                break;
            }
            break;
        }
    }
    return prod;
}
}
```

```
package javaapplication28;
import javax.swing.JOptionPane;
```

```
public class Order {
```

```
    int customerid;
```

```
    int orderid;
```

```
    double totalprice;
```

```
    public Order(int customerid, int orderid, double totalprice) {
```

```
        this.customerid = customerid;
```

```
        this.orderid = orderid;
```

```
        this.totalprice = totalprice;
```

```
    }
```

```
    public void printorderinfo(Product[] prod){
```



```

        System.out.println("the customer:"+customerid);

        System.out.println("the orderid:"+orderid);

        for(int i=0;i<prod.length;i++){

            System.out.println(prod[i].getName()+"-"+prod[i].getPrice());
JOptionPane.showMessageDialog(null,prod[i].getName()+"-"+prod[i].getPrice() );

        }

        JOptionPane.showMessageDialog(null, "the total price is"+totalprice);

        System.out.println("the total price is:"+totalprice);

    }

}

```

The screenshot shows the NetBeans IDE interface with a Java application running. The 'Output' window displays the following text:

```

run:
enter the number of products you want to enter
4
enter your customerid
23012091
enter your name
karim
enter your address
karim
enter your choice
1.smartphone
2.t_shirt
3.OOP
1
enter your choice
1.addproduct
2.removeproduct
1
enter your choice
1.smartphone
2.t_shirt
3.OOP
2
enter your choice
1.addproduct
2.removeproduct
1
enter your choice
1.smartphone
2.t_shirt
3.OOP
3
enter your choice
1.addproduct
2.removeproduct
1
enter your choice
1.smartphone
2.t_shirt

```

The IDE title bar indicates 'JavaApplication28 - Apache NetBeans IDE 19'. The system tray at the bottom shows the date and time as 4/22/2024, 10:06 PM.

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help JavaApplication28 - Apache NetBeans IDE 19 Search (Ctrl+F)

Output

JavaApplication28 (run) x JavaApplication28 (run) #2 x

```
1.addproduct
2.removeproduct
1
enter your choice
1.smartphone
2.t_shirt
3.OOP
2
enter your choice
1.addproduct
2.removeproduct
1
enter your choice
1.smartphone
2.t_shirt
3.OOP
3
enter your choice
1.addproduct
2.removeproduct
1
enter your choice
1.smartphone
2.t_shirt
3.OOP
1
enter your choice
1.addproduct
2.removeproduct
1
the customer:23012091
the orderid:1
smartphone=15.99
smartphone=599.99
OOP=19.99
smartphone=19.99
the total price is:679.96
BUILD SUCCESSFUL (total time: 19 seconds)
```

Activate Windows
Go to Settings to activate Windows.

JavaApplication28 (run) running 23.3 s

24°C عالم درجہ 10:06 PM 4/22/2024