```
import java.util.Scanner;

public class Product {

   protected int productId;
   protected String name;
   protected float price;

   Product(){}
   Product(int pi , String n , float p){

   productId = pi;
   name = n;
   price = p;

   }

   public int getProductId() {
      return productId;
   }

   public void setProductId(int productId) {
      this.productId = productId;
   }

   public String getName() {
      return name;
   }
```

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

    public float getPrice() {
        return price;
    }

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

}

class ElectronicProduct extends Product{

    private String brand;
    private int warrantyperiod;

    ElectronicProduct(){
    }

    ElectronicProduct(int pi, String n, float p, String b, int wp){

        super(pi , n, p);
        brand = b ;
        warrantyperiod = wp;
```

```
    }

    public String getBrand() {
        return brand;
    }

    public void setBrand(String brand) {
        this.brand = brand;
    }

    public int getWarrantyperiod() {
        return warrantyperiod;
    }

    public void setWarrantyperiod(int warrantyperiod) {
        this.warrantyperiod = warrantyperiod;
    }

}

class ClothingProduct extends Product{

private String size;
private String fabric;

ClothingProduct(){

}
```

```
ClothingProduct(int p, String n, int pi, String s, String f){

    super(p , n ,pi);

    size=s;
    fabric=f;



}

    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;
    }

}

class BookProduct extends Product{
```

```
    private String author;
    private String publisher;

BookProduct(){}

BookProduct(int p, String n, int pi, String a, String PU ){


    super(p, n, pi);
    author=a;
    publisher=PU;

}

    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;
```

```
    }
}

class Customer{

    protected int customerId;
    private String Customername;
    private String address;

    Customer(){}

    Customer(int cI, String Cn , String ad){

        customerId = cI;
        Customername= Cn;
        address = ad;
    }

    public int getCustomerId() {
        return customerId;
    }

    public void setCustomerId(int customerId) {
        this.customerId = customerId;
    }

    public String getName() {
        return Customername;
    }
```

```
    public void setName(String name) {
        Scanner in= new Scanner(System.in);
        Customername= in.next();
        this.Customername = Customername;
    }

    public String getAddress() {
        return address;
    }

    public void setAddress(String address) {
        Scanner in = new Scanner (System.in);
        this.address = address;
    }


}

  class Cart {
    Scanner in = new Scanner (System.in);
    private int customerId;
    protected int nProducts;
    private Product [] products;
    protected int length;


    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;
   length=nProducts;
         products = new Product [nProducts];

}

public void addProduct(Product P,int i){
        products [i]=P  ;
   }



public void removeProduct(int i){
              products [i]=null  ;
              length--;
}
public float calculate(Product products[]){
```

```
    float total=0;
    for(int i=0;i<nProducts;i++){
       if(products[i]!=null){
          total+=products[i].getPrice();
       }
      else
          continue;

    }
    return total;
 }
 public void placeOrder(int customerId){
   System.out.println("do you want to place order? 1_yes 2_no");
    int choice =in.nextInt();
    int order=1;
    if(choice==1){
     Order o =new Order();
     o.printOrderinfo(order, customerId,calculate(products), length, nProducts,  products);
     }

 }



 }

class Order {
 private int nproducts;
  private int orderId;
 private  float totalPrice;
```

```
 private int customerId;
Product [] products= new Product [nproducts];



 public int getOrderId() {
    return orderId;
 }

 public void setOrderId(int orderId) {
    this.orderId = orderId;
 }




 public float getTotalPrice() {
    return totalPrice;
 }

 public void setTotalPrice(float totalPrice) {
    this.totalPrice = totalPrice;
 }

 public int getNproducts() {
    return nproducts;
 }

 public void setNproducts(int nproducts) {
    this.nproducts = nproducts;
 }
```

```
    public Product[] getProducts() {
        return products;
    }

    public void setProducts(Product[] products) {
        this.products = products;
    }

   public void printOrderinfo(int orderId,int customerId,float totalPrice,int length,int nproducts,Product
products[]){
     System.out.println("OrderId = " + orderId);
      System.out.println("customerId = "+ customerId);
     System.out.println("Total price = $"+totalPrice);
      System.out.println("number of  products:"+length);
    System.out.println("products:");

   for(int i=0;i<length;i++){
     System.out.println( products[i].getName()+"-"+ products[i].getPrice());
   }
   }

   }
```

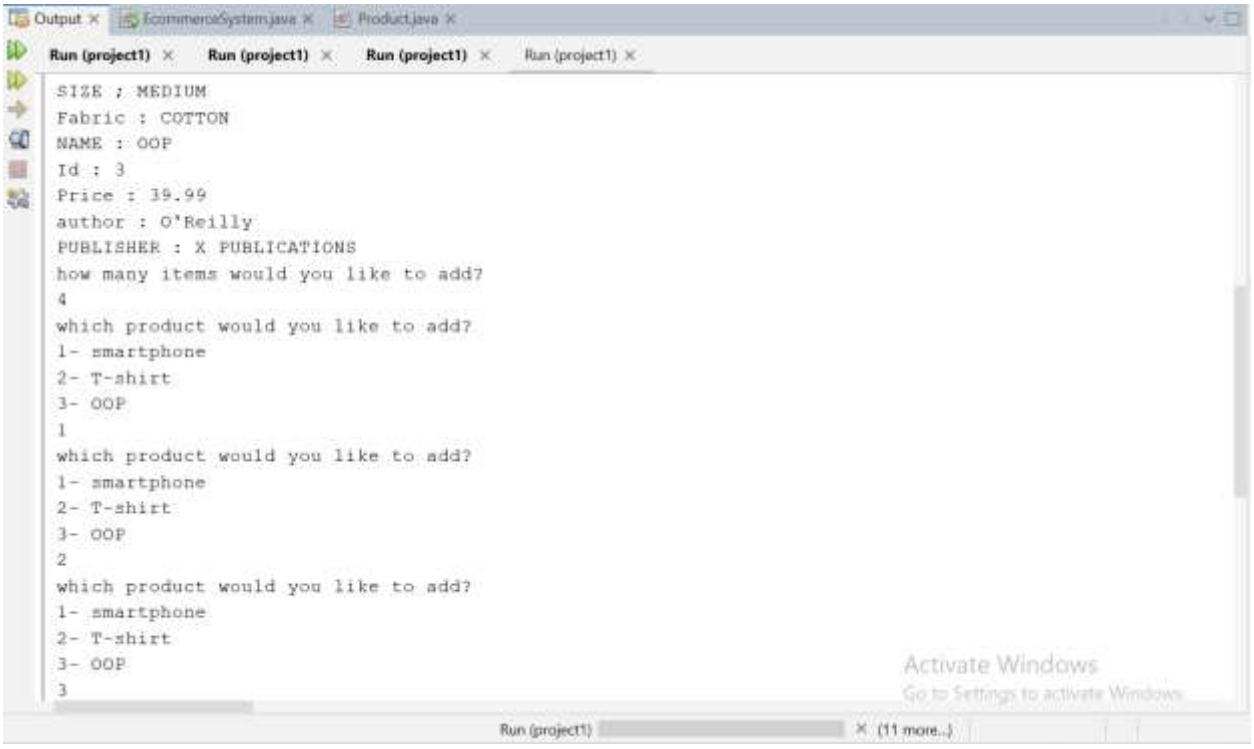
```
import java.util.Scanner;

public class EcommerceSystem  {
   public static void main(String[] args){

       System.out.println("welcome in our Ecommerce System !");

        Customer c1 = new Customer();

       Scanner in = new Scanner (System.in);

         System.out.println("please enter your id : ");
       int y = in.nextInt();
       c1.setCustomerId(y);

       System.out.println("please enter your name :");
       String x = in.nextLine();
       c1.setName(x);

       Scanner out = new Scanner (System.in);
       System.out.println("please enter you address : ");
       String o ;
       o=out.next();
       c1.setAddress(o);
```

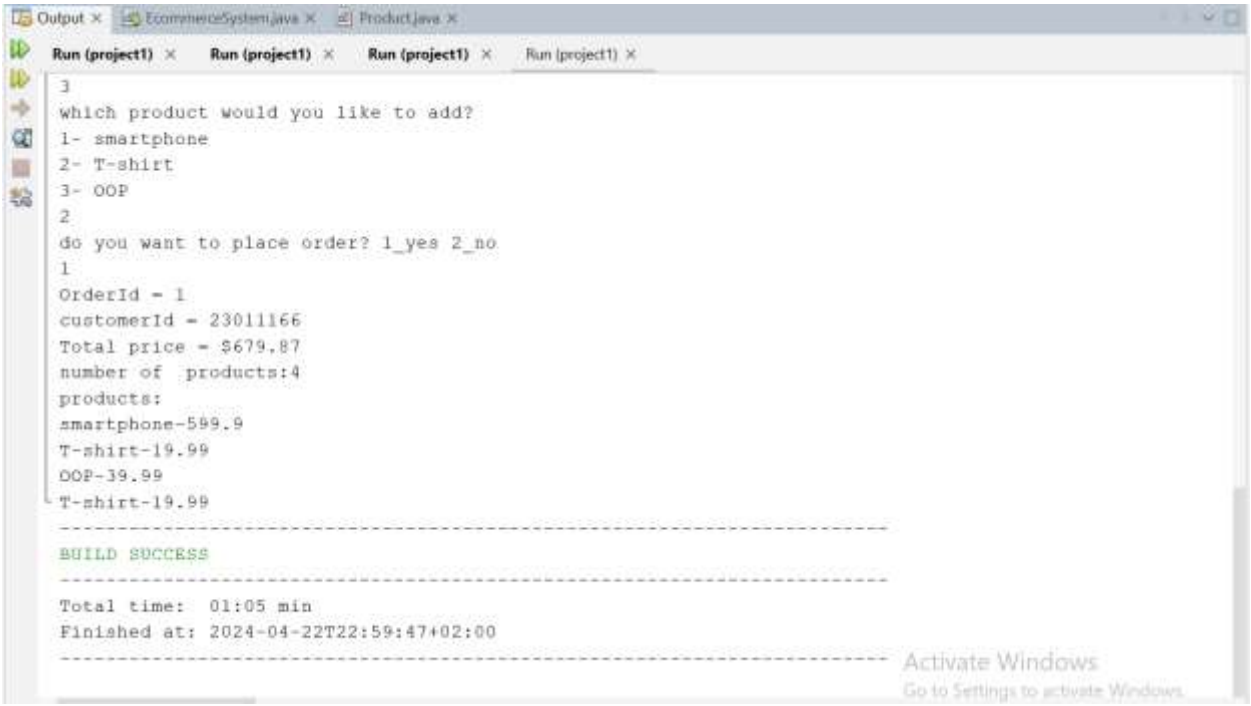
```
    ElectronicProduct EC1= new ElectronicProduct();
    EC1.setName("smartphone");
    EC1.setProductId(1);
    EC1.setPrice(599.9f);
    EC1.setBrand("Samsung");
    EC1.setWarrantyperiod(1);

    System.out.println("name : "+EC1.getName());
    System.out.println("Id : "+EC1.getProductId());
   System.out.println("Price : "+EC1.getPrice());
   System.out.println("Brand : "+EC1.getBrand());
    System.out.println("Warrantyperiod : "+EC1.getWarrantyperiod());

    ClothingProduct CL = new ClothingProduct ();

    CL.setName("T-shirt");
    CL.setProductId(2);
    CL.setPrice(19.99F);
    CL.setSize("MEDIUM");
    CL.setFabric("COTTON");

System.out.println("NAME : "+CL.getName());
   System.out.println("Id : "+CL.getProductId());
  System.out.println("Price : "+CL.getPrice());
System.out.println("SIZE ; "+CL.getSize());
  System.out.println("Fabric : "+CL.getFabric());
```

```
   BookProduct BK = new BookProduct();
   BK.setName("OOP");
   BK.setProductId(3);
   BK.setPrice(39.99F);
   BK.setAuthor("O'Reilly");
   BK.setPublisher("X PUBLICATIONS");

    System.out.println("NAME : "+BK.getName());
  System.out.println("Id : "+BK.getProductId());
 System.out.println("Price : "+BK.getPrice());
   System.out.println("author : "+BK.getAuthor());
    System.out.println("PUBLISHER : "+BK.getPublisher());


   Cart c = new Cart();
   c.setCustomerId(y);



System.out.println("how many items would you like to add?");
  int u =in.nextInt();
        c.setnProducts(u);

  for (int i=0;i<u;i++){
   System.out.println("which product would you like to add?");
    System.out.println("1- smartphone");
    System.out.println("2- T-shirt");
    System.out.println("3- OOP");
```

```
        int choice=in.nextInt();
      switch(choice){
        case 1:
          c.addProduct( EC1, i);
          break;
        case 2:
          c.addProduct( CL, i);
          break;
        case 3:
          c.addProduct( BK, i);
           break;
        default:
          String num=("enter valid number");

      }
      }
      c.placeOrder(y);
}

}
```


Output
EcommerceSystem.java
Product.java
Run (project1)
Run (project1)
Run (project1)
Run (project1)
cd C:\Users\PC219\Documents\NetBeansProjects\project1; "JAVA_HOME=C:\\Program Files\\Java\\jdk-21" cmd
Running NetBeans Compile On Save execution. Phase execution is skipped and output directories of depen
Scanning for projects...
----------< com.mycompany:project1 >----------
Building project1 1.0-SNAPSHOT
--------[jar]--------
--- exec-maven-plugin:3.1.0:exec (default-cli) @ project1 ---
welcome in our Ecommerce System !
please enter your id :
23011166
please enter your name :
mai
please enter you address :
wardians
name : smartphone
Id : 1
Price : 599.9
Brand : Samsung
Warrantyperiod : 1
NAME : T-shirt
Id : 2
Price : 19.99
Activate Windows
Go to Settings to activate Windows.


Output
EcommerceSystem.java
Product.java
Run (project1)
Run (project1)
Run (project1)
Run (project1)
SIZE : MEDIUM
Fabric : COTTON
NAME : OOP
Id : 3
Price : 39.99
author : O'Reilly
PUBLISHER : X PUBLICATIONS
how many items would you like to add?
4
which product would you like to add?
1- smartphone
2- T-shirt
3- OOP
1
which product would you like to add?
1- smartphone
2- T-shirt
3- OOP
2
which product would you like to add?
1- smartphone
2- T-shirt
3- OOP
3
Activate Windows
Go to Settings to activate Windows.
Run (project1)
(11 more...)


Output
EcommerceSystem.java
Product.java
Run (project1)
Run (project1)
Run (project1)
Run (project1)
3
which product would you like to add?
1- smartphone
2- T-shirt
3- OOP
2
do you want to place order? 1_yes 2_no
1
OrderId = 1
customerId = 23011166
Total price = $679.87
number of products:4
products:
smartphone-599.9
T-shirt-19.99
OOP-39.99
T-shirt-19.99
BUILD SUCCESS
Total time: 01:05 min
Finished at: 2024-04-22T22:59:47+02:00
Activate Windows
Go to Settings to activate Windows.