Ecommerce project:

```
package ecommercesystem;



public class Product {
    int productId;
    String name;
    float price;
public Product (int pId, String n, float p) {
productId = Math.abs(pId);
name = n;
price = Math.abs(p);
}
    public int getProductId() {
        return productId;
    }
    public void setProductId(int productId) {
        if(productId>0)
            this.productId = productId;
        else
            this.productId =Math.abs(productId);
    }
    public String getName() {
        return name;
```

```
    }
    public void setName(String name) {
        this.name = name;
    }
    public float getPrice() {
        return price;
    }
    public void setPrice(float price) {
        if(price>0)
          this.price = price;
        else
           this.price =Math.abs(price);
    }

}

public class ElectronicProduct extends Product{
    String brand;
    int warrantyPeriod;

 public ElectronicProduct(int pId, String n, float p, String b,int wP) {
super(pId, 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) {
        if(warrantyPeriod>0)
            this.warrantyPeriod = warrantyPeriod;
        else
            this.warrantyPeriod =Math.abs(productId);

    }

}
```

```
public class ClothingProduct extends Product {
    String fabric;
    String size;
public ClothingProduct(int pId, String n, float p, String s,String f) {
super(pId, n, p);
size = s;
fabric = f;
}
    public String getFabric() {
        return fabric;
    }

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

    public String getSize() {
        return size;
    }

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

```
}


public class BookProduct extends Product{
   String author;
   String publisher;
public BookProduct (int pId, String n, float p, String a, String pub) {
super(pId, n, p);
author = a;
publisher = pub;}
   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;
```

```
    }

}

public class Customer {
    int customerId;
    String name;
    String address;
public Customer(int cId, String n, String a) {
customerId = cId;
name = n;
address = a;
}

    public int getCustomerId() {
        return customerId;
    }

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

    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;
    }

}

public class Cart {
  int customorId;
  int nProducts;
  Product[]products ;
  int length;
   public int getCustomorId() {
        return customorId;
    }
```

```
public void setCustomorId(int customorId) {

    this.customorId = customorId;
}

public int getnProducts() {
    return nProducts;
}
 public Product[] getProducts() {
    return products;
}

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

 public void setnProducts(int nProducts) {
    this.nProducts = nProducts;
     products = new Product[nProducts];
     length=nProducts;
}
public void addProducts(Product p,int i){
      products[i]=p;
```

```
    }
    public void removeProduct(int i){
        products[i]=null;
        length--;
    }
    public float calculatePrice(Product products[]){
      float  total=0;
        for(int i=0;i<nProducts;i++){
            if(products[i]==null)
                continue;
            else
                total+=products[i].getPrice();


        }
        return total;
    }
    public void placeOrder(int customorId){
        Scanner input=new Scanner(System.in);
        Order o=new Order();
        System.out.println("would you like to place order? 1_yes 2_no");
        int place =input.nextInt();
        int order=1;
          if(place==1){
             o.printOrderInfo(customorId, order, calculatePrice(products), length,
products,nProducts);
```

```
        }
        else{
            System.out.println("do you want to remove an item? 1-yes 2-no");
            int x=input.nextInt();
            if(x==1){
                System.out.println("wich item you wish to remove?");
                int index=input.nextInt();
                index--;
                removeProduct(index);
                o.printOrderInfo(customorId, order, calculatePrice(products), length,
products,nProducts);
            }
            System.out.println("wish you a happy day :)");
        }
    }


     }



public class Order {
    int customorId;
    int orderId;
    float totalPrice;
    int nProducts;
    Product[]products=new Product[nProducts];
```

```
public int getCustomorId() {
    return customorId;
}

public void setCustomorId(int customorId) {
    if(customorId>0)
      this.customorId = customorId;
    else
      this.customorId = Math.abs(orderId);

}

public int getOrderId() {
    return orderId;
}

public void setOrderId(int orderId) {
    if(orderId>0)
      this.orderId = orderId;
    else
      this.orderId = orderId;
}

public float getTotalPrice() {
```

```
    return 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 setTotalPrice(float totalPrice) {
    if(totalPrice>0)
        this.totalPrice = totalPrice;
    else
        this.totalPrice = Math.abs(totalPrice);
```

```
    }
    public void printOrderInfo(int customorId , int orderId, float totalPrice, int
length,Product products[],int nProducts){
        System.out.println("Here is your order summary: ");
        System.out.println("Order id: "+orderId+"\ncustomor id:
"+customorId+"\nnumber of products: "+length);
        System.out.println("products: ");
        for(int i=0;i<nProducts;i++){
            if(products[i]==null)
                continue;
            else{
                System.out.println(products[i].getName()+" - $"+products[i].getPrice());
            }
        }
        System.out.println("tatal price :&"+totalPrice);
    }


}
public class EcommerceSystem {



    public static void main(String[] args) {
        ElectronicProduct e=new ElectronicProduct(1,"Smartphone", 599.9f,
"Samsung", 1);
        ClothingProduct c1=new ClothingProduct(2, "T-shirt",19.99f, "Medium",
"Cotton");
```

```
        BookProduct b=new BookProduct(3, "OOP", 39.99f,"O'Reilly", "X
Publications");
        Scanner input =new Scanner(System.in);
         System.out.println("Welcome to the E-commerce System!");

        System.out.println("Please enter your id");
        int id=input.nextInt();

        System.out.println("Please Enter your name");
        String name=input.nextLine();
        input.nextLine();

        System.out.println("Please enter your address");
        String address=input.nextLine();
            input.nextLine();

          Customer cu=new Customer(id,name,address);

         System.out.println("How many products you want to add to the cart?");
         Cart c=new Cart();
         int x=input.nextInt();
         c.setnProducts( x);
         int i;
         for(i=0;i<x;i++){
```

```
            System.out.println("wich product would you like to add? '1' for Samsung Smartphone - '2' for T-shirt - '3' for OOP book by O'Reilly");
            int choice=input.nextInt();
            switch (choice){
                case 1:
                  c.addProducts(e, i);
                  break;
                case 2:
                  c.addProducts(c1, i);
                  break;
                case 3:
                  c.addProducts(b, i);
                  break;
                default:
                {System.out.println("please enter a valid choice");
                i--;
                }
              }

          }
          System.out.println("your total is $"+c.calculatePrice(c.getProducts()));
           c.placeOrder(cu.getCustomerId());


}
```

```
}
```