

```
7 import java.util.Scanner;
8 public class EcommerceSystem {
9
10
11     public static void main(String[] args) {
12         Scanner input = new Scanner(System.in);
13         ElectronicProduct smartphone = new ElectronicProduct();
14         smartphone.setName("smartphone");
15         smartphone.setId(1);
16         smartphone.setPrice(599.9f);
17         smartphone.setBrand("Samsung");
18         smartphone.setWarrantyPeriod(1);
19         ClothingProduct tShirt = new ClothingProduct();
20         tShirt.setName("T-shirt");
21         tShirt.setId(2);
22         tShirt.setPrice(19.99f);
23         tShirt.setSize("Medium");
24         tShirt.setFabric("Cotton");
25
26
27         BookProduct oopBook = new BookProduct();
28         oopBook.setName("OOP");
29         oopBook.setId(3);
30         oopBook.setPrice(39.99f);
31         oopBook.setAuthor("O'Reilly");
32         oopBook.setPublisher("X Publications");
33
34
35         Customer customer = new Customer();
36         System.out.print("Enter your customer ID: ");
37         customer.setCustomerId(input.nextInt());
38         System.out.print("Enter your name: ");
39         customer.setName(input.next());
40         System.out.print("Enter your address: ");
41         customer.setAddress(input.next());
42
43
44         System.out.print("How many products do you want to order? ");
45         int numProducts = input.nextInt();
```

```

44 System.out.print("How many products do you want to order? ");
45 int numProducts = input.nextInt();
46 Cart cart = new Cart(customer.getId(), numProducts);
47 for (int i = 0; i < numProducts; i++) {
48     System.out.println("which product would you like to add \n [1]smart phone \n [2] t_shirt \n [3]OOP");
49     int type = input.nextInt();
50     switch (type) {
51         case 1 -> {
52             cart.addProduct(smartphone, i);
53         }
54         case 2 -> {
55             cart.addProduct(tShirt, i);
56         }
57         case 3 -> {
58             cart.addProduct(oopBook, i);
59         }
60         default -> System.out.println("Invalid product type!");
61     }
62 }
63
64
65 System.out.print("do you want to place an order? (yes/no): ");
66 String answer = input.next();
67 if (answer.equalsIgnoreCase("yes")) {
68     cart.placeOrder();
69 }
70
71
72 System.out.println("Order Information:");
73 Order order = new Order(customer.getId(), 1, cart.getProducts(), (float) cart.calculatePrice());
74 order.printOrderInfo();
75
76
77 }
78
79 }
80
81

```

```
/**
 *
 * @author Mega Store
 */
public class Product {
    private int Id;
    private String name ;
    private float price ;

    public int getId() {
        return Id;
    }

    public void setId(int Id) {
        if (Id<0){this.Id=Math.abs(Id);}
        this.Id = Id;
    }

    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=Math.abs(price);}
        else this.price = price;
    }
}
```

```
1  /*
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
4   */
5  package ecommerceSystem;
6
7  /**
8   *
9   * @author Mega Store
10  */
11  public class ElectronicProduct extends Product {
12      private String brand;
13      private int warrantyPeriod;
14
15      public String getBrand() {
16          return brand;
17      }
18
19      public void setBrand(String brand) {
20          this.brand = brand;
21      }
22
23      public int getWarrantyPeriod() {
24          return warrantyPeriod;
25      }
26
27      public void setWarrantyPeriod(int warrantyPeriod) {
28          if(warrantyPeriod<0){this.warrantyPeriod=Math.abs(warrantyPeriod);}
29          else this.warrantyPeriod = warrantyPeriod;
30      }
31  }
32  }
33
```

```
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3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
4   */
5   package ecommercesystem;
6
7   /**
8    *
9    * @author Mega Store
10   */
11   public class ClothingProduct extends Product {
12       private String size ;
13       private String fabric;
14
15       public String getSize() {
16           return size;
17       }
18
19       public void setSize(String size) {
20           this.size = size;
21       }
22
23       public String getFabric() {
24           return fabric;
25       }
26
27       public void setFabric(String fabric) {
28           this.fabric = fabric;
29       }
30
31   }
32
33
```

Source History

```
3  * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
4  */
5  package ecommerceSystem;
6
7  /**
8   *
9   * @author Mega Store
10  */
11  public class BookProduct extends Product{
12      private String author ;
13      private String publisher;
14
15      public String getAuthor() {
16          return author;
17      }
18
19      public void setAuthor(String author) {
20          this.author = author;
21      }
22
23      public String getPublisher() {
24          return publisher;
25      }
26
27      public void setPublisher(String publisher) {
28          this.publisher = publisher;
29      }
30
31  }
32
```

```
/**
 *
 * @author Mega Store
 */
public class Customer {
    private String name;
    private String address;
    private int customerId;

    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 int getCustomerId() {
        return customerId;
    }

    public void setCustomerId(int customerId) {
        if(customerId<0){this.customerId=Math.abs(customerId);}
        else this.customerId = customerId;
    }
}
```



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Start Page x Output x EcommerceSystem.java x Product.java x ElectronicProduct.java x ClothingProduct.java x BookProduct.java x Customer.java x Cart.java x Order.java x

Source History

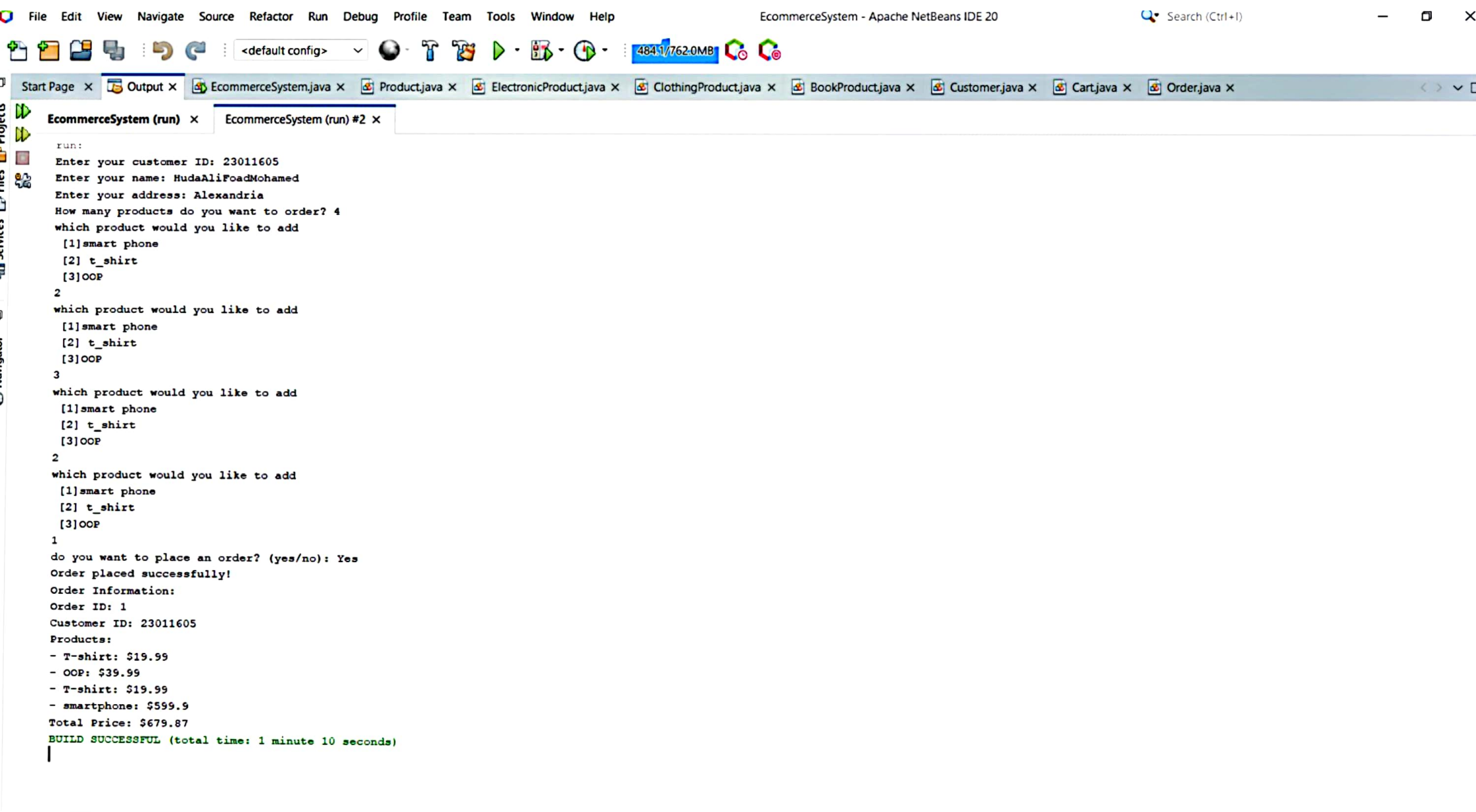
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4  */
5  package ecommercesystem;
6
7  /**
8   *
9   * @author Mega Store
10  */
11  public class Cart {
12      private int customerId;
13      private int nProducts;
14      private final Product[] products;
15
16
17      public Cart(int customerId, int nProducts) {
18          this.customerId = Math.abs(customerId);
19          this.nProducts = Math.abs(nProducts);
20          this.products = new Product[this.nProducts];
21      }
22
23
24      public int getCustomerId() {
25          return customerId;
26      }
27
28      public void setCustomerId(int customerId) {
29          this.customerId = Math.abs(customerId);
30      }
31
32      public int getNProducts() {
33          return nProducts;
34      }
35
36      public void setNProducts(int nProducts) {
37          if(nProducts<0) this.nProducts = Math.abs(nProducts);
38          else this.nProducts=nProducts;
39      }
40  }
```

Threads



```
40
41 public Product[] getProducts() {
42     return products;
43 }
44 public void addProduct(Product product, int index) {
45     if (index >= 0 && index < nProducts) {
46         products[index] = product;
47     } else {
48         System.out.println("Invalid index");
49     }
50 }
51
52
53 public void removeProduct(int index) {
54     if (index >= 0 && index < nProducts) {
55         products[index] = null;
56     } else {
57         System.out.println("Invalid index");
58     }
59 }
60
61
62 public double calculatePrice() {
63     double totalPrice = 0.0;
64     for (Product product : products) {
65         if (product != null) {
66             totalPrice += product.getPrice();
67         }
68     }
69     return totalPrice;
70 }
71
72
73 public void placeOrder() {
74
75     System.out.println("Order placed successfully!");
76 }
77 }
78
```

```
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4   */
5  package ecommerceSystem;
6
7  /**
8   *
9   * @author Mega Store
10  */
11  public class Order {
12      private final int customerId;
13      private final int orderId;
14      private final Product[] products;
15      private final float totalPrice;
16
17
18      public Order(int customerId, int orderId, Product[] products, float totalPrice) {
19          this.customerId = Math.abs(customerId);
20          this.orderId = Math.abs(orderId);
21          this.products = products;
22          this.totalPrice = Math.abs(totalPrice);
23      }
24
25
26      public void printOrderInfo() {
27          System.out.println("Order ID: " + orderId);
28          System.out.println("Customer ID: " + customerId);
29          System.out.println("Products:");
30          for (Product product : products) {
31              System.out.println("- " + product.getName() + ": $" + product.getPrice());
32          }
33          System.out.println("Total Price: $" + totalPrice);
34      }
35  }
36
37  }
```



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EcommerceSystem - Apache NetBeans IDE 20

Search (Ctrl+I)

Start Page x Output x EcommerceSystem.java x Product.java x ElectronicProduct.java x ClothingProduct.java x BookProduct.java x Customer.java x Cart.java x Order.java x

EcommerceSystem (run) x EcommerceSystem (run) #2 x

```
run:
Enter your customer ID: 23011605
Enter your name: HudaAliFoadMohamed
Enter your address: Alexandria
How many products do you want to order? 4
which product would you like to add
[1]smart phone
[2] t_shirt
[3]OOP
2
which product would you like to add
[1]smart phone
[2] t_shirt
[3]OOP
3
which product would you like to add
[1]smart phone
[2] t_shirt
[3]OOP
2
which product would you like to add
[1]smart phone
[2] t_shirt
[3]OOP
1
do you want to place an order? (yes/no): Yes
Order placed successfully!
Order Information:
Order ID: 1
Customer ID: 23011605
Products:
- T-shirt: $19.99
- OOP: $39.99
- T-shirt: $19.99
- smartphone: $599.9
Total Price: $679.87
BUILD SUCCESSFUL (total time: 1 minute 10 seconds)
```