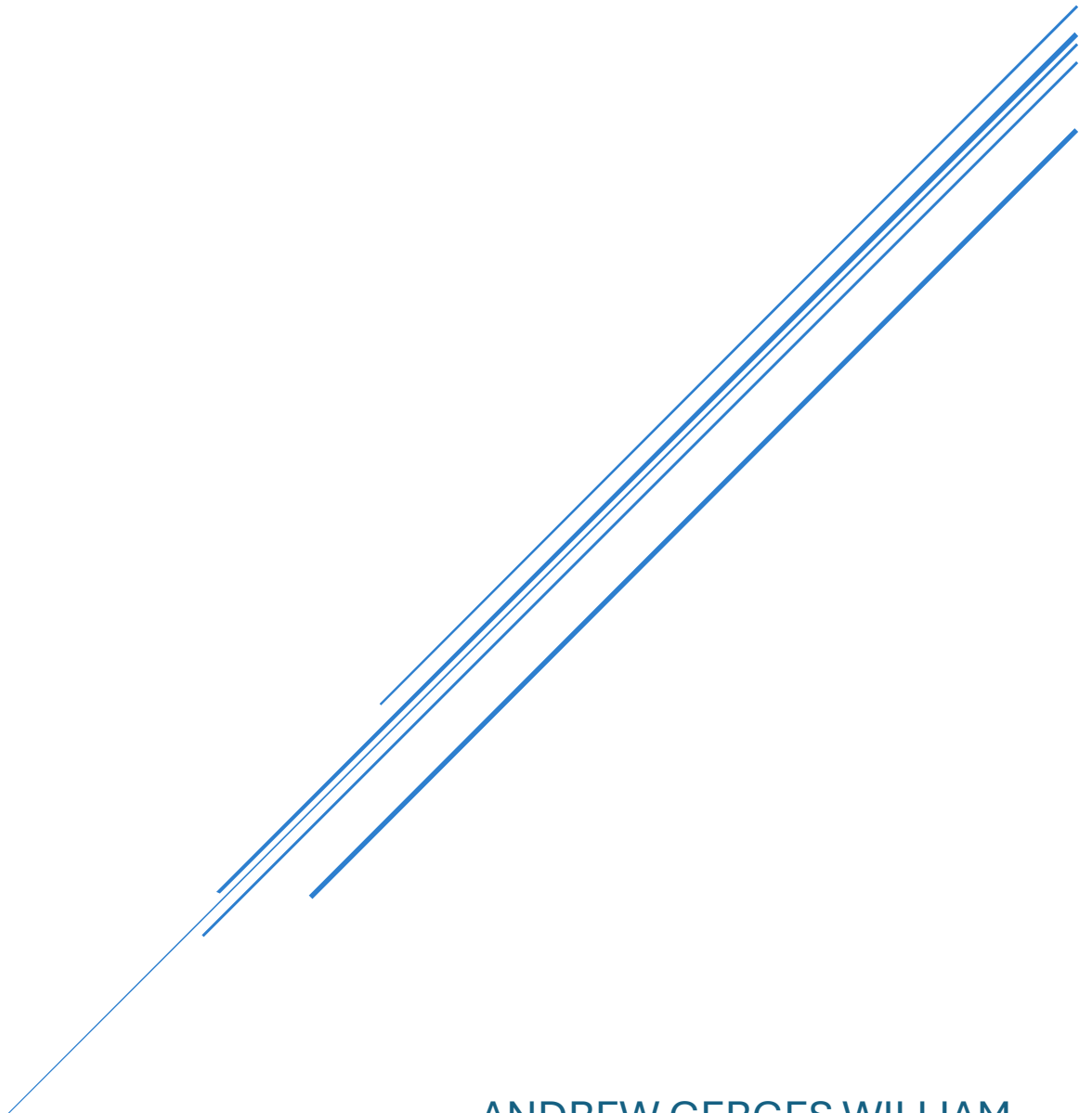


JAVA PROJECT

E-commerce Program



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23010145

```
Product.java x ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java EcommerceSystem.java
1 package JavaTerm2Project;
2
3 public class Product {
4     protected int productId;
5     protected String name;
6     protected float price;
7
8     public Product(int productId, String name, float price) {
9         this.productId = productId;
10        this.name = name;
11        this.price = price;
12    }
13
14    public int getProductId() { return productId; }
15
16    public void setProductId(int productId) { this.productId = productId; }
17
18    public String getName() { return name; }
19
20    public void setName(String name) { this.name = name; }
21
22    public float getPrice() { return price; }
23
24    public void setPrice(float price) { this.price = price; }
25 }
```

```
Product.java ElectronicProduct.java x ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java EcommerceSystem.java
1 package JavaTerm2Project;
2 public class ElectronicProduct extends Product {
3     private String brand;
4     private int warrantyPeriod;
5
6     public ElectronicProduct(int productId, String name, float price, String brand, int warrantyPeriod) {
7         super(productId, name, price);
8         this.brand = brand;
9         this.warrantyPeriod = warrantyPeriod;
10    }
11
12    public String getBrand() {
13        return brand;
14    }
15
16    public void setBrand(String brand) {
17        this.brand = brand;
18    }
19
20    public int getWarrantyPeriod() {
21        return warrantyPeriod;
22    }
23
24    public void setWarrantyPeriod(int warrantyPeriod) {
25        this.warrantyPeriod = warrantyPeriod;
26    }
27 }
```

```
Product.java ElectronicProduct.java ClothingProduct.java × BookProduct.java Customer.java Cart.java Order.java EcommerceSystem.java
1 package JavaTerm2Project;
  4 usages
2 public class ClothingProduct extends Product {
  3 usages
3     private String size;
  3 usages
4     private String fabric;
  2 usages
5     public ClothingProduct(int productId, String name, float price, String size, String fabric) {
6         super(productId, name, price);
7         this.size = size;
8         this.fabric = fabric;
9     }
  no usages
10    public String getSize() {
11        return size;
12    }
  no usages
13    public void setSize(String size) {
14        this.size = size;
15    }
  no usages
16    public String getFabric() {
17        return fabric;
18    }
  no usages
19    public void setFabric(String fabric) {
20        this.fabric = fabric;
21    }
22 }
```

```
Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java × Customer.java Cart.java Order.java EcommerceSystem.java
1 package JavaTerm2Project;
2
  4 usages
3 public class BookProduct extends Product {
  3 usages
4     private String author;
  3 usages
5     private String publisher;
6
  2 usages
7     public BookProduct(int productId, String name, float price, String author, String publisher) {
8         super(productId, name, price);
9         this.author = author;
10        this.publisher = publisher;
11    }
  no usages
12    public String getAuthor() {
13        return author;
14    }
  no usages
15    public void setAuthor(String author) {
16        this.author = author;
17    }
  no usages
18    public String getPublisher() {
19        return publisher;
20    }
  no usages
21    public void setPublisher(String publisher) {
22        this.publisher = publisher;
23    }
24 }
```

```
Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java x Cart.java Order.java EcommerceSystem.java
1 package JavaTerm2Project;
2
3 public class Customer {
4     private int customerId;
5     private String name;
6     private String address;
7
8     public Customer(int customerId, String name, String address) {
9         this.customerId = customerId;
10        this.name = name;
11        this.address = address;
12    }
13
14    public int getCustomerId() {
15        return customerId;
16    }
17
18    public void setCustomerId(int customerId) {
19        this.customerId = customerId;
20    }
21
22    public String getName() {
23        return name;
24    }
25
26    public void setName(String name) {
```

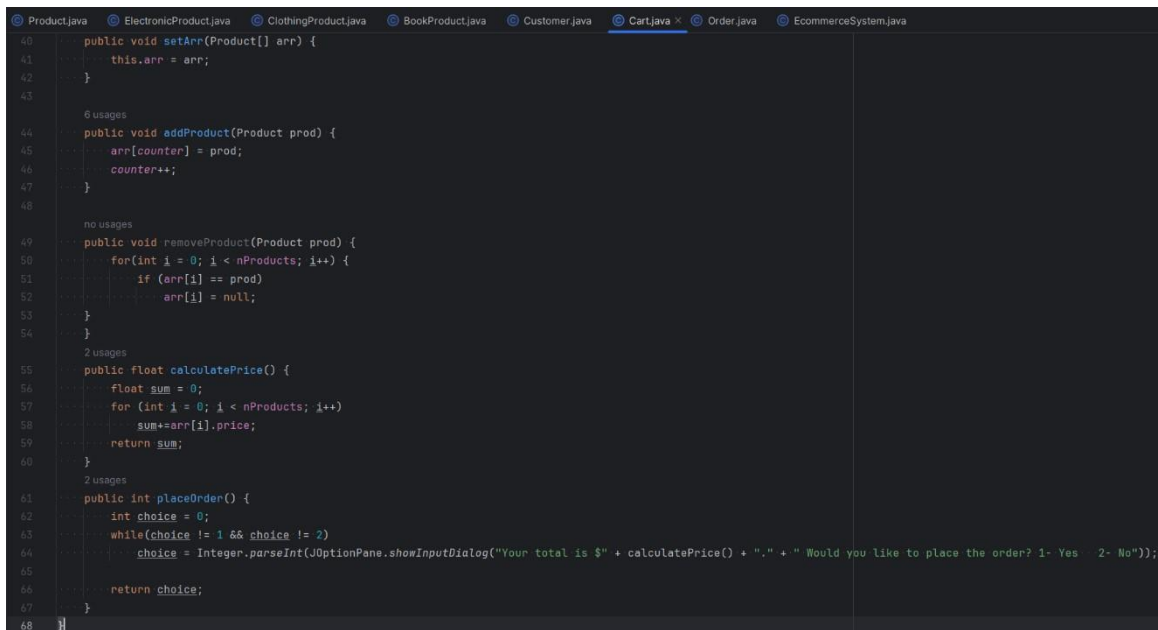
```
22    public String getName() {
23        return name;
24    }
25
26    public void setName(String name) {
27        this.name = name;
28    }
29
30    public String getAddress() {
31        return address;
32    }
33
34    public void setAddress(String address) {
35        this.address = address;
36    }
37 }
38
```

Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java **Cart.java** Order.java EcommerceSystem.java

```
1 package JavaTerm2Project;
2
3 import javax.swing.*;
4 import java.util.Scanner;
5
6 5 usages
7 public class Cart {
8     no usages
9     Scanner input = new Scanner(System.in);
10
11     3 usages
12     private int customerId;
13     6 usages
14     private int nProducts;
15     6 usages
16     private Product[] arr = new Product[nProducts];
17     2 usages
18     private static int counter = 0;
19     no usages
20     private static int orderId;
21
22     2 usages
23     public Cart(int customerId, int nProducts) {
24         this.customerId = customerId;
25         this.nProducts = nProducts;
26     }
27
28     1 usage
29     public int getCustomerId() {
30         return customerId;
31     }
32
33     no usages
```

Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java **Cart.java** × Order.java EcommerceSystem.java

```
1 usage
20 public int getCustomerId() {
21     return customerId;
22 }
23
24 no usages
24 public void setCustomerId(int customerId) {
25     this.customerId = customerId;
26 }
27
28 1 usage
28 public int get_nProducts() {
29     return nProducts;
30 }
31
32 2 usages
32 public void set_nProducts(int nProducts) {
33     this.nProducts = nProducts;
34 }
35
36 4 usages
36 public Product[] getArr() {
37     return arr;
38 }
39
40 2 usages
40 public void setArr(Product[] arr) {
41     this.arr = arr;
42 }
43
44 6 usages
44 public void addProduct(Product prod) {
45     arr[counter] = prod;
```



```
Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java EcommerceSystem.java
40 public void setArr(Product[] arr) {
41     this.arr = arr;
42 }
43
44 6 usages
45 public void addProduct(Product prod) {
46     arr[counter] = prod;
47     counter++;
48 }
49
50 no usages
51 public void removeProduct(Product prod) {
52     for(int i = 0; i < nProducts; i++) {
53         if (arr[i] == prod)
54             arr[i] = null;
55     }
56 }
57
58 2 usages
59 public float calculatePrice() {
60     float sum = 0;
61     for (int i = 0; i < nProducts; i++)
62         sum+=arr[i].price;
63     return sum;
64 }
65
66 2 usages
67 public int placeOrder() {
68     int choice = 0;
69     while(choice != 1 && choice != 2)
70         choice = Integer.parseInt(JOptionPane.showInputDialog("Your total is $" + calculatePrice() + "." + " Would you like to place the order? 1- Yes 2- No"));
71     return choice;
72 }
73 }
```

```
Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java x EcommerceSystem.java
1 package JavaTerm2Project;
2
3 import javax.swing.*;
4
5 public class Order {
6     private int customerId;
7     private static int orderId = 0;
8     private int nProducts;
9     private Product[] prod = new Product[nProducts];
10    private float totalPrice;
11
12    public Order(int customerId, Product[] prod) {
13        this.customerId = customerId;
14        this.prod = prod;
15    }
16
17    public static int getOrderId() {
18        return orderId;
19    }
20
21    public void printOrderInfo(Cart cart) {
22        orderId++;
23        // Create JFrame
24        JFrame frame = new JFrame( title: "Order");
25
26        // Create JPanel for order details
27        JPanel panel = new JPanel();
28    }
29
30    // Create JFrame
31    JFrame frame = new JFrame( title: "Order");
32
33    // Create JPanel for order details
34    JPanel panel = new JPanel();
35
36    // Create JTextArea for order details
37    JTextArea orderDetails = new JTextArea( rows: 10, columns: 30);
38    orderDetails.setEditable(false); // makes it non-editable
39
40    // Build order string
41    String order = "";
42    for (int i = 0; i < cart.get_nProducts(); i++) {
43        order = order + cart.getArr()[i].name + " - $" + cart.getArr()[i].price + '\n';
44    }
45
46    // Build order ID string
47    String orderID = "Order ID: " + orderId + '\n';
48
49    // Build customer ID string
50    String customerID = "Customer ID: " + cart.getCustomerId() + '\n';
51
52    // Build products string
53    String products = "Products: \n";
54
55    // Build total price string
56    String totalPrice = "Total Price: $" + cart.calculatePrice() + '\n';
57
58    // Set order details text
59    orderDetails.setText(orderID + customerID + products + order + totalPrice + "Thanks for shopping!");
60
61    // Add order details text area to the panel
62    panel.add(orderDetails);
63
64    // Add panel to the frame
65    frame.getContentPane().add(panel);
66
67    // Set frame properties
68    frame.setSize( width: 400, height: 300);
69    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
70    frame.setVisible(true);
71    }
```

```
Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java x EcommerceSystem.java
19 // Create JFrame
20 JFrame frame = new JFrame( title: "Order");
21
22 // Create JPanel for order details
23 JPanel panel = new JPanel();
24
25 // Create JTextArea for order details
26 JTextArea orderDetails = new JTextArea( rows: 10, columns: 30);
27 orderDetails.setEditable(false); // makes it non-editable
28
29 // Build order string
30 String order = "";
31 for (int i = 0; i < cart.get_nProducts(); i++) {
32     order = order + cart.getArr()[i].name + " - $" + cart.getArr()[i].price + '\n';
33 }
34
35 // Build order ID string
36 String orderID = "Order ID: " + orderId + '\n';
37
38 // Build customer ID string
39 String customerID = "Customer ID: " + cart.getCustomerId() + '\n';
40
41 // Build products string
42 String products = "Products: \n";
43
44 // Build total price string
45 String totalPrice = "Total Price: $" + cart.calculatePrice() + '\n';
46
47 // Set order details text
48 orderDetails.setText(orderID + customerID + products + order + totalPrice + "Thanks for shopping!");
49
50 // Add order details text area to the panel
51 panel.add(orderDetails);
52
53 // Add panel to the frame
54 frame.getContentPane().add(panel);
55
56 // Set frame properties
57 frame.setSize( width: 400, height: 300);
58 frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
59 frame.setVisible(true);
60 }
```

```

Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java EcommerceSystem.java x
1 package JavaTerm2Project;
2 import javax.swing.*;
3 import java.util.Scanner;
4 public class EcommerceSystem {
5     public static void main(String[] args) {
6         Scanner input = new Scanner(System.in);
7
8         ElectronicProduct smartphone = new ElectronicProduct( productid: 1, name: "smartphone", price: 599.9f, brand: "Samsung", warrantyPeriod: 1);
9         ClothingProduct tShirt = new ClothingProduct( productid: 2, name: "T-Shirt", price: 19.99f, size: "Medium", fabric: "Cotton");
10        BookProduct OOP = new BookProduct( productid: 3, name: "OOP", price: 39.99f, author: "O'Reilly", publisher: "X Publications"); //Test products
11
12        int id;
13        String name, address;
14
15        id = Math.abs(Integer.parseInt(JOptionPane.showInputDialog("Welcome to the store! Please enter your ID")));
16        name = JOptionPane.showInputDialog("Please enter your name");
17        address = JOptionPane.showInputDialog("Please enter your address");
18
19        Customer cust = new Customer(id, name, address);
20
21        int count = Integer.parseInt(JOptionPane.showInputDialog("How many products do you want to add to your cart?"));
22
23        Cart cart = new Cart(id, count);
24        cart.set_nProducts(count);
25        Product[] products = new Product[count];
26        cart.setArr(products); // Setting up the cart of products
27
28        for (int i = 0; i < count; i++) {
29            int choice = 0;
30
31            while (choice > 3 || choice < 1)
32                choice = Integer.parseInt(JOptionPane.showInputDialog("Which product to add? 1- Smartphone 2- T-Shirt 3-OOP"));
33            // Picking what products to add to cart

```

```

Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java EcommerceSystem.java x
31 while (choice > 3 || choice < 1)
32     choice = Integer.parseInt(JOptionPane.showInputDialog("Which product to add? 1- Smartphone 2- T-Shirt 3-OOP"));
33 // Picking what products to add to cart
34 if (choice == 1)
35     cart.addProduct(smartphone);
36 else if (choice == 2)
37     cart.addProduct(tShirt);
38 else
39     cart.addProduct(OOP); // Adding the product to cart
40 }
41
42 Order order = new Order(id, cart.getArr()); // Setting up the order
43 int placeOrder = cart.placeOrder();
44
45 JFrame frame = new JFrame( title: "Thank you");
46 JPanel panel = new JPanel();
47
48 frame.setSize( width: 400, height: 300);
49 frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
50
51 JTextArea thanks = new JTextArea( rows: 10, columns: 30);
52 thanks.setEditable(false);
53 thanks.setText("Thanks for shopping!");
54 panel.add(thanks);
55 frame.getContentPane().add(panel); // Text to show in case customer does not order
56
57 if (placeOrder == 1)
58     order.printOrderInfo(cart); // Final receipt of the added products
59 else
60     frame.setVisible(true); // Frame properties
61 }
62 }
63

```