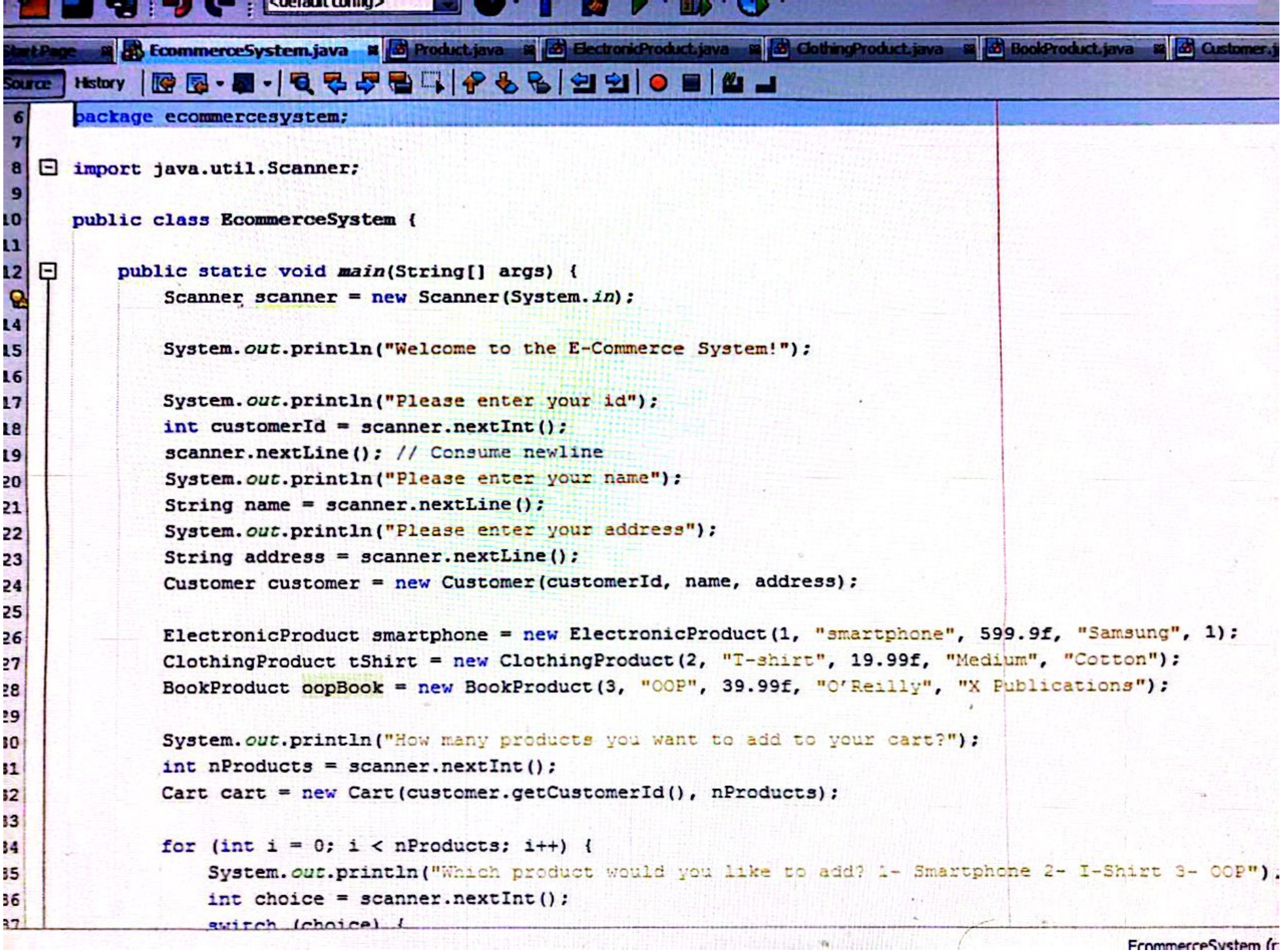
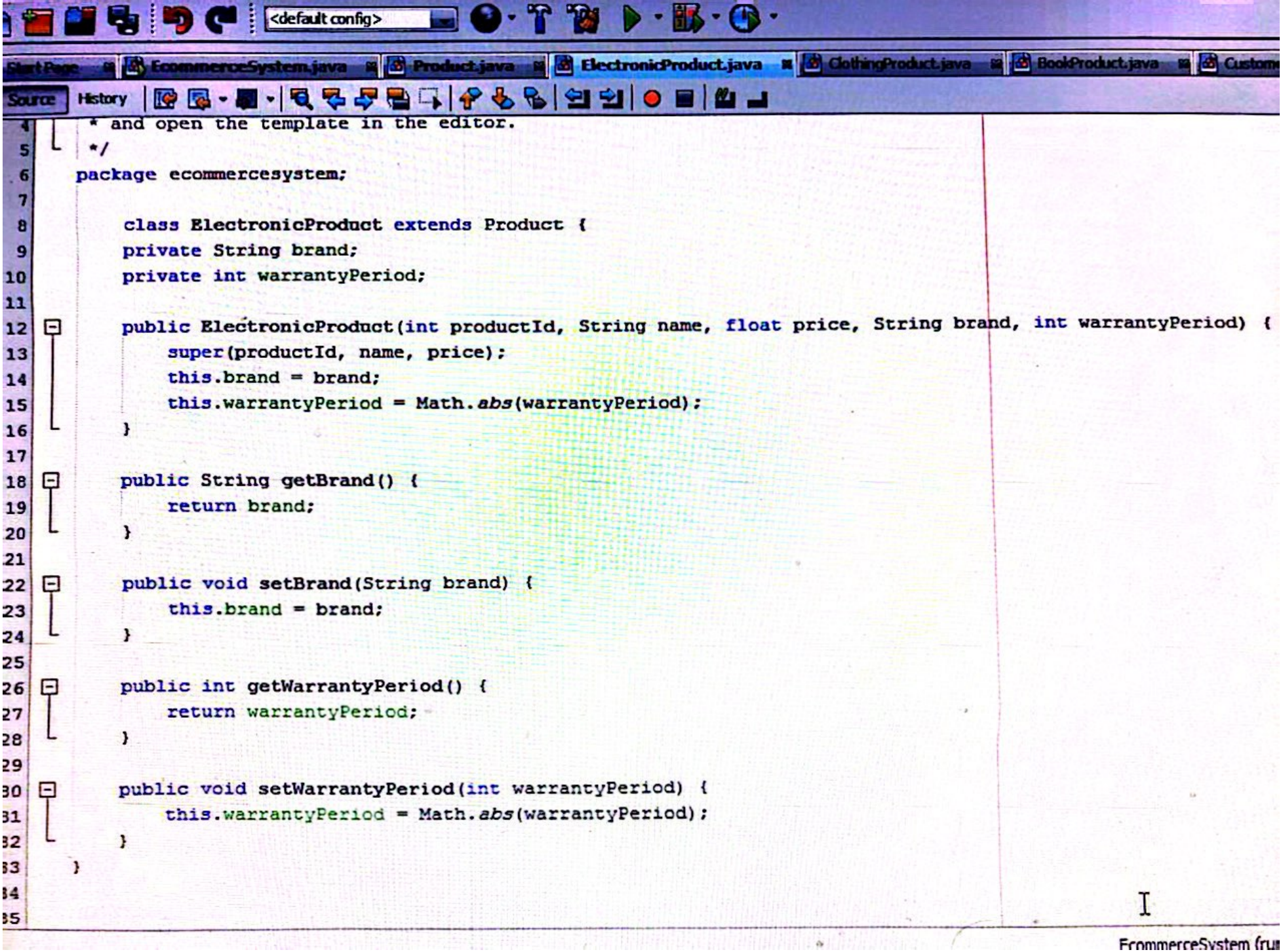
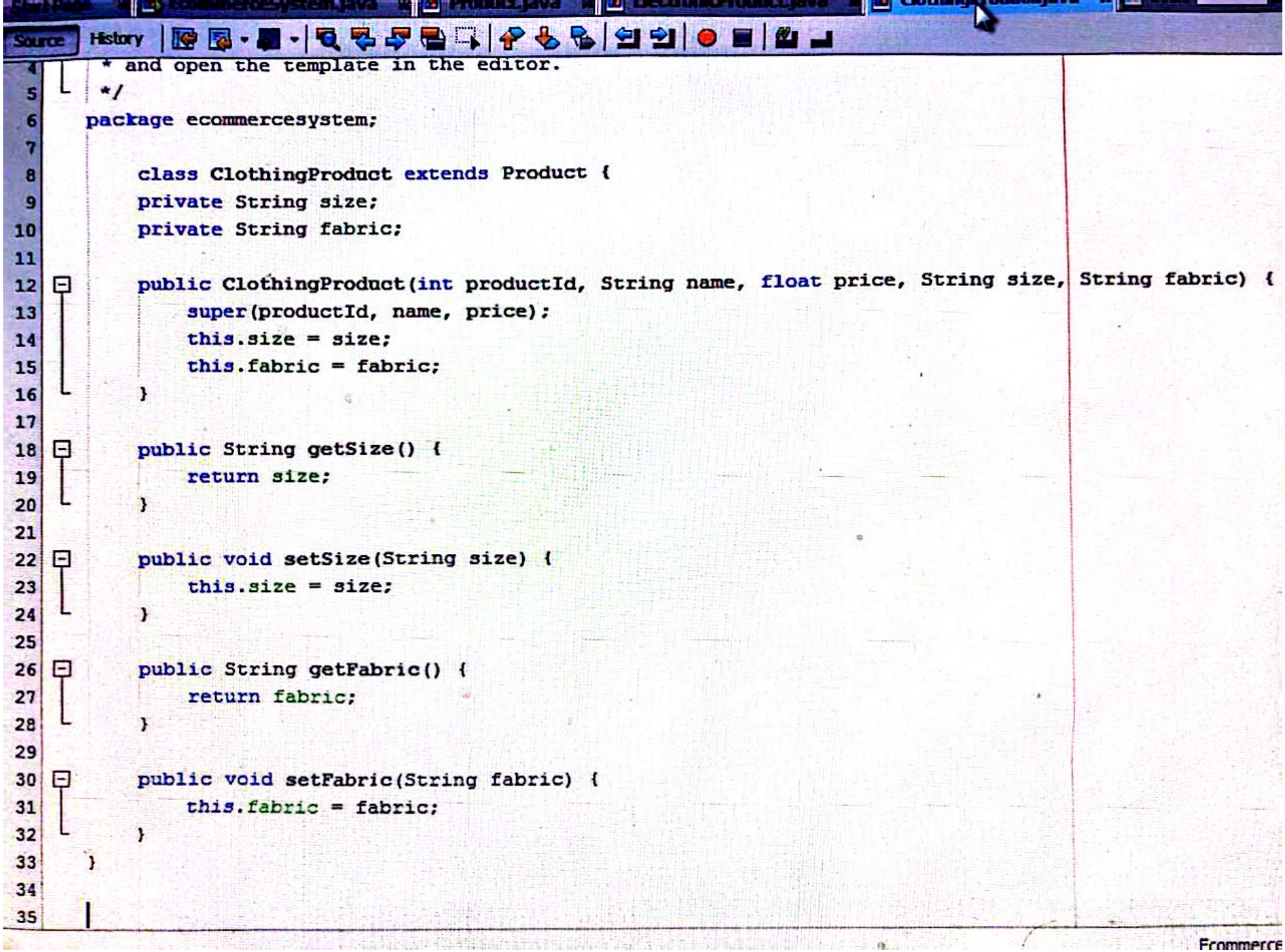



```
            System.out.println("Which product would you like to add? 1- Smartphone 2- T-Shirt 3- OOP");
            int choice = scanner.nextInt();
            switch (choice) {
                case 1:
                    cart.addProduct(smartphone, i);
                    break;
                case 2:
                    cart.addProduct(tShirt, i);
                    break;
                case 3:
                    cart.addProduct(oopBook, i);
                    break;
                default:
                    System.out.println("Invalid choice!");
                    break;
            }
        }

        float totalPrice = cart.calculatePrice();
        System.out.println("Your total is $" + totalPrice + ". Would you like to place the order? 1- Yes 2- No");
        int placeOrderChoice = scanner.nextInt();
        if (placeOrderChoice == 1) {
            cart.placeOrder();
        } else {
            System.out.println("Order placement canceled.");
        }

        scanner.close();
    }
}
```

```
6  package ecommercesystem;
7
8      class Product {
9      private int productId;
10     private String name;
11     private float price;
12
13     public Product(int productId, String name, float price) {
14         this.productId = Math.abs(productId);
15         this.name = name;
16         this.price = Math.abs(price);
17     }
18
19     public int getProductId() {
20         return productId;
21     }
22
23     public void setProductId(int productId) {
24         this.productId = Math.abs(productId);
25     }
26
27     public String getName() {
28         return name;
29     }
30
31     public void setName(String name) {
32         this.name = name;
33     }
34
35     public float getPrice() {
36         return price;
```

```
    }

    public void setProductId(int productId) {
        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) {
        this.price = Math.abs(price);
    }
}
```





```
 * and open the template in the editor.
 */
package ecommercesystem;

    class ClothingProduct extends Product {
    private String size;
    private String fabric;

    public ClothingProduct(int productId, String name, float price, String size, String fabric) {
        super(productId, name, 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;
    }
}
```

```
 * and open the template in the editor.
 */
package ecommercesystem;

    class BookProduct extends Product {
    private String author;
    private String publisher;

    public BookProduct(int productId, String name, float price, String author, String publisher
        super(productId, name, 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;
    }
}
```

```java
package ecommercesystem;

class Customer {
private int customerId;
private String name;
private String address;

public Customer(int customerId, String name, String address) {
    this.customerId = Math.abs(customerId);
    this.name = name;
    this.address = address;
}

public int getCustomerId() {
    return customerId;
}

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

public String getName() {
    return name;
}

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

public String getAddress() {
    return address;
}
```

```
23      public void setCustomerId(int customerId) {
24          this.customerId = Math.abs(customerId);
25      }
26
27      public String getName() {
28          return name;
29      }
30
31      public void setName(String name) {
32          this.name = name;
33      }
34
35      public String getAddress() {
36          return address;
37      }
38
39      public void setAddress(String address) {
40          this.address = address;
41      }
42  }
43
44
```

```
7
8   class Cart {
9   private int customerId;
10  private int nProducts;
11  private Product[] products;
12
13      public Cart(int customerId, int nProducts) {
14          this.customerId = Math.abs(customerId);
15          this.nProducts = Math.abs(nProducts);
16          this.products = new Product[nProducts];
17      }
18
19      public int getCustomerId() {
20          return customerId;
21      }
22
23      public void setCustomerId(int customerId) {
24          this.customerId = Math.abs(customerId);
25      }
26
27      public int getNProducts() {
28          return nProducts;
29      }
30
31      public void setNProducts(int nProducts) {
32          this.nProducts = Math.abs(nProducts);
33      }
34
35      public Product[] getProducts() {
36          return products;
```

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

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

public void addProduct(Product product, int index) {
    products[index] = product;
}

public void removeProduct(int index) {
    products[index] = null;
}

public float calculatePrice() {
    float totalPrice = 0;
    for (Product product : products) {
        if (product != null) {
            totalPrice += product.getPrice();
        }
    }
    return totalPrice;
}

public void placeOrder() {
    System.out.println("Here's your order's summary:");
    System.out.println("Order ID: 1"); // Hardcoded for simplicity
    System.out.println("Customer ID: " + customerId);
    System.out.println("Products:");
```

```
        products[index] = null;
    }

    public float calculatePrice() {
        float totalPrice = 0;
        for (Product product : products) {
            if (product != null) {
                totalPrice += product.getPrice();
            }
        }
        return totalPrice;
    }

    public void placeOrder() {
        System.out.println("Here's your order's summary:");
        System.out.println("Order ID: 1"); // Hardcoded for simplicity
        System.out.println("Customer ID: " + customerId);
        System.out.println("Products:");

        for (Product product : products) {
            if (product != null) {
                System.out.println(product.getName() + " - $" + product.getPrice());
            }
        }

        System.out.println("Total Price: $" + calculatePrice());
    }
}
```

```
run:
Welcome to the E-Commerce System!
Please enter your id
22012031
Please enter your name
BEGAD
Please enter your address
ADDRESS
How many products you want to add to your cart?
4
Which product would you like to add? 1- Smartphone 2- I-Shirt 3- OOP
2
Which product would you like to add? 1- Smartphone 2- I-Shirt 3- OOP
3
Which product would you like to add? 1- Smartphone 2- I-Shirt 3- OOP
2
Which product would you like to add? 1- Smartphone 2- I-Shirt 3- OOP
1
Your total is $679.87. Would you like to place the order? 1- Yes 2- No
1
Here's your order's summary:
Order ID: 1
Customer ID: 22012031
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 48 seconds)
```