Experiment 2

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Subject: Java	**Subject Code: 22CSH-359**

1. **Aim:** Write a Java program to create a Product class with attributes id, name, and price. The program should: Demonstrate the use of constructors and methods to display product details.

2. **Objective:** The objective of this Java program is to demonstrate the creation and usage of a class with attributes, the implementation of constructors, and the use of methods to manipulate and display object data. This experiment helps in understanding Object-Oriented Programming (OOP) concepts such as encapsulation, constructors, and methods.

3. **Code:**

```java
2 usages
class Product {
    2 usages
    int id;
    2 usages
    String name;
    2 usages
    double price;

    1 usage
    Product(int id, String name, double price) {  // parameterized constructor.
        this.id = id;
        this.name = name;
        this.price = price;
    }
    1 usage
    void displayProduct() {
        System.out.println("Product ID: " + id);
        System.out.println("Product Name: " + name);
        System.out.println("Product Price: " + price);
    }
}

public class ProductDemo {
    public static void main(String[] args) {
        Product product = new Product( id: 101, name: "Laptop", price: 59999.99);


        product.displayProduct();
    }
}
```

4. Output:

```
Product ID: 101
Product Name: Laptop
Product Price: 59999.99

Process finished with exit code 0
```

5. Learning outcomes:

- Understanding Object-Oriented Programming (OOP) concepts such as classes and objects.
- Learning how to use constructors to initialize object attributes.
- Implementing methods to display and manage object data.
- Practicing encapsulation by using private attributes and public methods.
- Enhancing problem-solving skills by applying real-world object management.
- Gaining hands-on experience in creating and handling multiple objects in Java.