Project :

Gangisetty Nithin Kumar

192325048

Step 1: Identify products and create a table

Here are 6 products that I want to store in my system:

Attribute	Sample Data
Name of the product	Greatest Hits, Office Paper, The Matrix, Microsoft Office, iPhone Case, Adobe Photoshop
Price	9.59, 5.99, 14.99, 199.99, 29.99, 499.99
Number of units in stock	25, 50, 30, 20, 40, 15
Item number	1, 2, 3, 4, 5, 6

Step 2: Add data types to the table

Attribute	Sample Data	Data Type
Name of the product	Greatest Hits	String
Price	9.59	double
Number of units in stock	25	int
Item number	1	int

Step 3-4: Create project and class

Here is the **Product** class:

// inventory/Product.java

```java
public class Product {

    // Instance field declarations

    private int itemNumber;

    private String name;

    private int quantityInStock;

    private double price;


    // Default constructor

    public Product() {

        // Initialize fields to their default values

    }


    // Overloaded constructor

    public Product(int number, String name, int qty, double price) {

        this.itemNumber = number;

        this.name = name;

        this.quantityInStock = qty;

        this.price = price;

    }


    // Getter and setter methods

    public int getItemNumber() {
```

```java
        return itemNumber;

    }


    public void setItemNumber(int itemNumber) {

        this.itemNumber = itemNumber;

    }


    public String getName() {

        return name;

    }


    public void setName(String name) {

        this.name = name;

    }


    public int getQuantityInStock() {

        return quantityInStock;

    }


    public void setQuantityInStock(int quantityInStock) {

        this.quantityInStock = quantityInStock;

    }


    public double getPrice() {

        return price;

    }
```

```java
    public void setPrice(double price) {

        this.price = price;

    }


    // Override toString() method

    @Override

    public String toString() {

        return "Item Number: " + itemNumber + "\nName: " + name + "\nQuantity in stock:
" + quantityInStock + "\nPrice: " + price;

    }

}
```

Step 10-12: Create ProductTester class and test the Product class

Here is the **ProductTester** class:

// inventory/ProductTester.java

```java
public class ProductTester {

    public static void main(String[] args) {

        // Create and initialize six Product objects

        Product product1 = new Product();

        Product product2 = new Product();

        Product product3 = new Product(1, "Greatest Hits", 25, 9.59);

        Product product4 = new Product(2, "Office Paper", 50, 5.99);

        Product product5 = new Product(3, "The Matrix", 30, 14.99);

        Product product6 = new Product(4, "Microsoft Office", 20, 199.99);
```

```java
// Display the details of each product to the console

System.out.println(product1.toString());

System.out.println(product2.toString());

System.out.println(product3.toString());

System.out.println(product4.toString());

System.out.println(product5.toString());

System.out.println(product6.toString());
    }
}
```

```
 1  Item Number: 1
 2  Name: Greatest Hits
 3  Quantity in stock: 25
 4  Price: 9.59
 5  Item Number: 2
 6  Name: Office Paper
 7  Quantity in stock: 50
 8  Price: 5.99
 9  Item Number: 3
10  Name: The Matrix
11  Quantity in stock: 30
12  Price: 14.99
13  Item Number: 4
14  Name: Microsoft Office
15  Quantity in stock: 20
16  Price: 199.99
17  Item Number: 5
18  Name: iPhone Case
19  Quantity in stock: 40
20  Price: 29.99
21  Item Number: 6
22  Name: Adobe Photoshop
23  Quantity in stock: 15
24  Price: 499.99
```