SECTION_4(PROJECT)

Task 1: Identify products and attributes

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

1. Office Chair
2. Music CD (Greatest Hits)
3. DVD Movie (The Shawshank Redemption)
4. Software (Microsoft Office)
5. Printer Cartridge
6. Headphones

Here is the table with the attributes and sample data:

Attribute	**Sample Data**
Name of the product	Office Chair, Greatest Hits, The Shawshank Redemption, Microsoft Office, Printer Cartridge, Headphones
Price	100.00, 9.99, 14.99, 200.00, 20.00, 50.00
Number of units in stock	10, 25, 30, 5, 15, 20
Item number	1, 2, 3, 4, 5, 6

Task 2: Identify data types

Here is the updated table with the data types:

Attribute	**Sample Data**	**Data Type**
Name of the product	Office Chair, Greatest Hits,...	String
Price	100.00, 9.99,...	double
Number of units in stock	10, 25,...	int

Attribute	Sample Data	Data Type
Item number	1, 2,...	int

Task 3-12:

```
package product;

public class product {
        // Instance field declarations
   private int itemNumber;
   private String name;
   private int quantityInStock;
   private double price;

   // Default constructor
   public product() {
      // Allow compiler to initialize fields to default values
   }

   // Constructor with parameters
   public product(int number, String name, int qty, double price) {
      this.itemNumber = number;
      this.name = name;
      this.quantityInStock = qty;
      this.price = price;
   }

   // Getter/accessor methods
```

```
public int getItemNumber() {
   return itemNumber;
}

public String getName() {
   return name;
}

public int getQuantityInStock() {
   return quantityInStock;
}

public double getPrice() {
   return price;
}

// Setter/mutator methods
public void setItemNumber(int number) {
   this.itemNumber = number;
}

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

public void setQuantityInStock(int qty) {
   this.quantityInStock = qty;
}
```

```
    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;
    }

    public static void main(String[] args) {
        // Create and initialize six Product objects
        product product1 = new product(1, "Ergonomic Chair", 10, 99.99);
        product product2 = new product(2, "Greatest Hits", 25, 9.99);
        product product3 = new product(3, "Microsoft Office", 5, 149.99);
        product product4 = new product(4, "The Shawshank Redemption", 15, 14.99);
        product product5 = new product(5, "Stapler", 20, 4.99);
        product product6 = new product(6, "Wireless Mouse", 10, 29.99);

        // Display details of each product to console
        System.out.println(product1.toString());
        System.out.println("\n");
        System.out.println(product2.toString());
        System.out.println("\n");
        System.out.println(product3.toString());
        System.out.println("\n");
        System.out.println(product4.toString());
        System.out.println("\n");
```

```
        System.out.println(product5.toString());
        System.out.println("\n");
        System.out.println(product6.toString());
    }
}
```

OUTPUT:

```
<terminated> product [Java Application] C:\Users\SRAVANTHI KODURU\.p2\pool\plugins\org.eclipse.just
Item Number: 1
Name: Ergonomic Chair
Quantity in stock: 10
Price: 99.99


Item Number: 2
Name: Greatest Hits
Quantity in stock: 25
Price: 9.99


Item Number: 3
Name: Microsoft Office
Quantity in stock: 5
Price: 149.99


Item Number: 4
Name: The Shawshank Redemption
Quantity in stock: 15
Price: 14.99


Item Number: 5
Name: Stapler
Quantity in stock: 20
Price: 4.99


Item Number: 6
Name: Wireless Mouse
Quantity in stock: 10
Price: 29.99
```