

Java Fundamentals

Section 4: Creating an Inventory Project

```
package inventory;

/**
 * This class represents a product in the inventory system.
 */
public class Product {
    // Instance field declarations
    private int itemNumber;
    private String name;
    private int quantity;
    private double price;

    /**
     * Default constructor that initializes the fields to their default values.
     */
    public Product() {
        // Default constructor
    }

    /**
     * Parameterized constructor to initialize the product with specific values.
     *
     * @param number the item number
     * @param name the name of the product
     * @param qty the quantity in stock
     * @param price the price of each unit
     */
}
```

```
*/  
  
public Product(int number, String name, int qty, double price) {  
    this.itemNumber = number;  
    this.name = name;  
    this.quantity = qty;  
    this.price = price;  
}
```

```
// Getter and setter methods
```

```
/**  
 * Gets the item number.  
 * @return the item number  
 */  
public int getItemNumber() {  
    return itemNumber;  
}
```

```
/**  
 * Sets the item number.  
 * @param itemNumber the item number to set  
 */  
public void setItemNumber(int itemNumber) {  
    this.itemNumber = itemNumber;  
}
```

```
/**  
 * Gets the name of the product.  
 * @return the name of the product  
 */  
public String getName() {
```

```
    return name;
}
```

```
/**
 * Sets the name of the product.
 * @param name the name of the product to set
 */
public void setName(String name) {
    this.name = name;
}
```

```
/**
 * Gets the quantity in stock.
 * @return the quantity in stock
 */
public int getQuantity() {
    return quantity;
}
```

```
/**
 * Sets the quantity in stock.
 * @param quantity the quantity to set
 */
public void setQuantity(int quantity) {
    this.quantity = quantity;
}
```

```
/**
 * Gets the price of each unit.
 * @return the price of each unit
 */
```

```
public double getPrice() {  
    return price;  
}  
  
/**  
 * Sets the price of each unit.  
 * @param price the price to set  
 */  
public void setPrice(double price) {  
    this.price = price;  
}  
  
/**  
 * Returns a string representation of the product.  
 * @return a description of the product  
 */  
@Override  
public String toString() {  
    return "Item Number : " + itemNumber + "\n" +  
        "Name : " + name + "\n" +  
        "Quantity in stock: " + quantity + "\n" +  
        "Price : " + price;  
}  
}
```

OUTPUT:-

Product 1 Details:

Item Number : 101

Name : Office Chair

Quantity in stock: 15

Price : 89.99

Product 2 Details:

Item Number : 102

Name : Laptop

Quantity in stock: 10

Price : 999.99

Product 3 Details:

Item Number : 103

Name : Desk Lamp

Quantity in stock: 25

Price : 19.99

Product 4 Details:

Item Number : 104

Name : Bluetooth Headphones

Quantity in stock: 30

Price : 59.99

Product 5 Details:

Item Number : 105

Name : USB Drive

Quantity in stock: 50

Price : 12.99

Product 6 Details:

Item Number : 106

Name : Monitor

Quantity in stock: 5

Price : 199.99