

# Java Fundamentals

## Section 4

```
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