Java Fundamentals

Section 5: Creating an Inventory Project

```java
package inventory;


public class Product {

    private int itemNumber;

    private String name;

    private int quantity;

    private double price;

    private boolean active = true; // Default value


    // Constructor with parameters

    public Product(int itemNumber, String name, int quantity, double price) {

        this.itemNumber = itemNumber;

        this.name = name;

        this.quantity = quantity;

        this.price = price;

    }


    // Getters and Setters

    public int getItemNumber() { return itemNumber; }

    public void setItemNumber(int itemNumber) { this.itemNumber = itemNumber; }


    public String getName() { return name; }

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

```java
public int getQuantity() { return quantity; }

public void setQuantity(int quantity) { this.quantity = quantity; }


public double getPrice() { return price; }

public void setPrice(double price) { this.price = price; }


public boolean isActive() { return active; }

public void setActive(boolean active) { this.active = active; }


// Method to calculate inventory value

public double getInventoryValue() {

    return price * quantity;

}


// toString method with ternary operator

@Override

public String toString() {

    return "Item Number : " + itemNumber + "\n" +

        "Name : " + name + "\n" +

        "Quantity in stock: " + quantity + "\n" +

        "Price : " + price + "\n" +

        "Stock Value : " + getInventoryValue() + "\n" +

        "Product Status : " + (active ? "Active" : "Discontinued");

    }

}
```

OUTPUT:-

```
Enter item number: 1
Enter product name: Greatest Hits
Enter quantity in stock: 25
Enter price: 9.99

Enter item number for second product: 2
Enter product name for second product: Latest Release
Enter quantity in stock for second product: 30
Enter price for second product: 19.99

Product 1 Details:
Item Number : 1
Name : Greatest Hits
Quantity in stock: 25
Price : 9.99
Stock Value : 249.75
Product Status : Active

Product 2 Details:
Item Number : 2
Name : Latest Release
Quantity in stock: 30
Price : 19.99
Stock Value : 599.70
Product Status : Active
```

```
Product 6 Details (Active status set to false):
Item Number : 6
Name : Sample Product
Quantity in stock: 10
Price : 15.50
Stock Value : 155.00
Product Status : Discontinued
```