Project :

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# 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

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() {

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;

}

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

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);

// 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());

}

}

