Object Oriented Programming II

Q1:

**Product 1**

Create a class named Product with the following private member variables.

* id of type Long
* productName of type String
* supplierName of type String
* price of type Integer

Include appropriate getters and setters.

Include appropriate constructors.

Create another class named ProductBO. There are no member variables in this class.

Include a public method in this class with the following prototype:

void displayProductDetails(Product product) ---- In this method, display the product details in the format as specified in sample output.

Create another class and write a main method to test the above class.

**Input and Output Format:**

Refer sample input and output for formatting specifications.

All text in bold corresponds to input and the rest corresponds to output.

**Sample Input and Output :**

Enter the product id

**1**

Enter the product name

**Printer**

Enter the supplier name

**HP**

Enter the product price

**22000**

Product Id is 1

Product Name is Printer

Supplier Name is Printer

Product price is 22000

Q2:-

**Product 2**

Create a class named Product with the following private member variables.

* id of type Long
* productName of type String
* supplierName of type String
* price of type Integer

Include appropriate getters and setters.

Include appropriate constructors.

Create another class named ProductBO. There are no member variables in this class.

Include the following public methods in this class

|  |  |
| --- | --- |
| Method prototype | Method description |
| public void displayProductDetails(Product product) | Display the product details in the format as specified in sample output. |
| public void updateProductName(Product product, String pname) | Update the product name to pname. |
| public void updateSupplierName(Product product, String sname) | Update the supplier name to sname. |
| public void updateProductPrice(Product product, Integer p) | Update the product price to p. |

Create another class and write a main method to test the above class.

**Input and Output Format:**

Refer sample input and output for formatting specifications.

All text in bold corresponds to input and the rest corresponds to output.

**Sample Input and Output :**

Enter the product id

**1**

Enter the product name

**Printer**

Enter the supplier name

**HP**

Enter the product price

**22000**

Product Id is 1

Product Name is Printer

Supplier Name is HP

Product price is 22000

Update Menu :

1) Update product name

2) Update supplier name

3) Update product price

Enter Choice

**2**

Enter new supplier name    //In case of other choices, prompt is "Enter new product name" or "Enter new product price"

**Wipro**

Product Id is 1

Product Name is Printer

Supplier Name is Wipro

Product price is 22000

Q3:-

**Product 3**

Create a class named Product with the following private member variables.

* id of type Long
* productName of type String
* supplierName of type String
* price of type Integer

Include appropriate getters and setters.

Include appropriate constructors.

Create another class named ProductBO. There are no member variables in this class.

Include the following public methods in this class

|  |  |
| --- | --- |
| Method prototype | Method description |
| public void displayAllProductDetails(Product productList[], int count) | The first parameter corresponds to the array of products and the second parameter corresponds to the number of products. Display the details of all products in the format as specified in sample output. |

Use the following code snippet to format the display of products.

System.out.format("%-10s %-20s %-20s %-10s\n", "Id","ProductName","SupplierName","Price");   // Java  
or  
Console.WriteLine("{0,-10} {1,-20} {2,-20} {3,-10}","Id","ProductName","SupplierName","Price");   // C#

Create another class and write a main method to test the above class.

**Input and Output Format:**

Refer sample input and output for formatting specifications.

All text in bold corresponds to input and the rest corresponds to output.

**Sample Input and Output :**

Enter the product id

**1**

Enter the product name

**Printer**

Enter the supplier name

**HP**

Enter the product price

**20000**

Do you want to enter the details of another product? Enter yes or no (not case sensitive)

**YES**

Enter the product id

**10**

Enter the product name

**Laptop**

Enter the supplier name

**Sony**

Enter the product price

**56000**

Do you want to enter the details of another product? Enter yes or no (not case sensitive)

**yes**

Enter the product id

**14**

Enter the product name

**Mobile Phone**

Enter the supplier name

**Samsung**

Enter the product price

**23000**

Do you want to enter the details of another product? Enter yes or no (not case sensitive)

**NO**

Id ProductName SupplierName Price

1 Printer HP 20000

10 Laptop Sony 56000

14 Mobile Phone Samsung 23000

Q4:-

**Product 4**

Create a class named Product with the following private member variables.

* id of type Long
* productName of type String
* supplierName of type String
* price of type Integer

Include appropriate getters and setters.

Include appropriate constructors.

Create another class named ProductBO. There are no member variables in this class.

Include the following public methods in this class

|  |  |
| --- | --- |
| Method prototype | Method description |
| public void displayAllProductDetails (List<Product> productList) | Display the details of all products in the format as specified in sample output. |

Use the following code snippet to format the display of products.

**System.out.format("%-10s %-20s %-20s %-10s\n", "Id","ProductName","SupplierName","Price"); // Java**  
or  
Console.WriteLine("{0,-10} {1,-20} {2,-20} {3,-10}","Id","ProductName","SupplierName","Price");   // C#

Create another class and write a main method to test the above class.

**Input and Output Format:**

Refer sample input and output for formatting specifications.

All text in bold corresponds to input and the rest corresponds to output.

**Sample Input and Output :**

Enter the product id

**1**

Enter the product name

**Printer**

Enter the supplier name

**HP**

Enter the product price

**20000**

Do you want to enter the details of another product? Enter yes or no (not case sensitive)

**YES**

Enter the product id

**10**

Enter the product name

**Laptop**

Enter the supplier name

**Sony**

Enter the product price

**56000**

Do you want to enter the details of another product? Enter yes or no (not case sensitive)

**yes**

Enter the product id

**14**

Enter the product name

**Mobile Phone**

Enter the supplier name

**Samsung**

Enter the product price

**23000**

Do you want to enter the details of another product? Enter yes or no (not case sensitive)

**NO**

Id ProductName SupplierName Price

1 Printer HP 20000

10 Laptop Sony 56000

14 Mobile Phone Samsung 23000

}

Q5:-

**Product 5**

Create a class named Product with the following private member variables.

* id of type Long
* productName of type String
* supplierName of type String
* price of type Integer

Include appropriate getters and setters.

Include appropriate constructors.

Create another class named ProductBO. There are no member variables in this class.

Include the following public methods in this class

|  |  |
| --- | --- |
| Method prototype | Method description |
| public void searchProductByName (List<Product> productList, String pname) | Display the details of the product being searched in the format as specified in sample output. If the product is not found, print “No records found” |

Use the following code snippet to format the display of products.

System.out.format("%-10s %-20s %-20s %-10s\n", "Id","ProductName","SupplierName","Price"); // Java  
or  
Console.WriteLine("{0,-10} {1,-20} {2,-20} {3,-10}","Id","ProductName","SupplierName","Price");   // C#

Create another class and write a main method to test the above class.

**Input and Output Format:**

Refer sample input and output for formatting specifications.

All text in bold corresponds to input and the rest corresponds to output.

**Sample Input and Output :**

Enter the product id

**1**

Enter the product name

**Printer**

Enter the supplier name

**HP**

Enter the product price

**20000**

Do you want to enter the details of another product? Enter yes or no (not case sensitive)

**yeS**

Enter the product id

**3**

Enter the product name

**Laptop**

Enter the supplier name

**Sony**

Enter the product price

**66000**

Do you want to enter the details of another product? Enter yes or no (not case sensitive)

**No**

Enter the name of the product to be searched

**Laptop**

Id ProductName SupplierName Price

3 Laptop Sony 66000