**Lab # 9 – Array of Objects (Weight - 3%)**

**Instructions:**

* Submit the solution and demo (execution screen) by 5:00 pm.

**Problem:**

A company sell following items:

|  |  |
| --- | --- |
| Item Name | Unit Price |
| TV-1  TV-2  Desktop-1  Desktop-2  Monitor-1  Monitor-2  Printer-1  Printer-2 | $699  $749  $549  $689  $99  $149  $349  $479 |

public class Inventory{

public static final String[ ] itemList = {“TV-1”, TV-2” , “Desktop-1”, “Desktop-2”, “Monitor-1”, “Monitor-2”, “Printer-1”, “Printer-2”};

public static final double[ ] priceList = { 699,749,549,689,99,149,349,479};

public static int findItem(String itemName){

int loc = -1; //not in the list

for(int i=0; i< itemList.length; i++{

if (itemList[i].equalsIgnoreCase(itemName)){

loc = i;

break;

}

}

return loc;

}

Using an array of PurchasedItem class, develop an application to generate an order invoice for a customer when customer buy some items from the company. For each order customer will provide his/her name and phone along with the following information about each item:

* Item name
* Item quantity

public class PurchasedItem{

private String name;

private int quantity;

private double price;

public PurchasedItem(String name, int quantity){

this.setName(name);

this.setQuantity(quantity);

}

public void setName(String name){

int loc = Inventory.findItem(name);

if (loc>=0){

this.name = name;

this.price = Inventory.priceList[loc];

}

}

public void setQuantity(int quantity){

if ((quantity >0) && (quantity <= 10)){

this.quantity = quantity;

}

}

public String getName(){

return this.name;

}

public int getQuantity(){

return this.quantity;

}

public double getPrice(){

return this.price;

}

public double getSubTotal(){

return this.price \* this.quantity;

}

public String toString(){

return name + “\t\t” + quantity + “\t\ + price + “\t” + this.getSubTotal();

}

}

Your program should validate for appropriate name of item and quantity (1 to 10).

The output generated should be as follows:

Customer Name: <Name of customer is printed>

Phone: <Phone number is printed here>

Item Name Quantity Unit Price Subtotal

X x x x

X x x x

X x x x

X x x x

X x x x

Total x x

**Submission**: Take a screen shot of both the classes and output and submit.

**Grading:**

2 points –

* + demonstrate proper use of array of objects (1 point)
  + proper logic and classes (1 points)

1 point – proper output