Laboratory Exercise
Classes and Methods

Objective:

At the end of the exercise, the students should be able to:

▪ Create a program based on a UML Class Diagram.

Software Requirements:

▪ Latest version of Netbeans
▪ Java Development Kit (JDK) 8

Procedure:

1. Create a folder named *LastName_FirstName* (ex. Reyes_Mark) in your local drive.
2. Create a project named **LabExer2**. Set the project location to your own folder.
3. Construct a simple purchasing program based on the UML Class Diagram below.

LabExer2
- itemName: String
- itemPrice: double
- itemQuantity: int
- amountDue: double
+ setItemName(String newItemName): void
+ setTotalCost (int quantity, double price): void
+ getItemName(): String
+ getTotalCost(): double
+ readInput(): void
+ writeOutput(): void

    Note: The *readInput()* method will be used to accept user input through the *Scanner* class. This is done by:

    a. Writing **import java.util.*;** on top of the code, before the line for the class name
    b. Instantiating an object of the Scanner class, **Scanner s = new Scanner (System.in);**
    c. Storing the input to the variable name based on data type
        For String: s.nextLine()
        For int: s.nextInt()
        For double: s.nextDouble()

    The *writeOutput()* method will be used to display an output similar to the sample below.

You are purchasing 3 bag(s) at 1,745.5 each.

4. Inform your instructor once you are done.

Sample output:

```
Enter the name of the item you are purchasing.
bag
Enter the quantity and price separated by a space.
3 1475.50
You are purchasing 3 bag(s) at 1475.5 each.
Amount due is 4426.50
```

GRADING RUBRIC (100 points):

Criterion	Description	Max Points
Correctness	The code produces the expected result.	40
Logic	The code meets the specifications of the problem.	40
Efficiency	The code is concise without sacrificing correctness and logic.	10
Syntax	The code adheres to the rules of the programming language.	10