FACULTY OF ENGINEERING AND INFORMATION SCIENCES

SUBJECT'S INFORMATION:	
Subject:	CSIT121 Object Oriented Design and Programming
Session:	Autumn 2019 (February)
Programme / Section:	Computer Science and IT
Lecturer:	Ms. Siti Hawa
Coursework Type *(tick appropriate box)*	❑ Individual Assignment ❑ Group Assignment ❑ Project ✓ Lab Task ❑ Seminar / Tutorial Paper ❑ Others

Coursework Title:	**Lab Task 4**	Coursework Percentage:	3%

ASSESSMENT CRITERIA:	
Correctness	All programs should produce the correct result as stated in the specification.
Coding	Programs should be written only using sequencing structures involving declarations, input/output statements, and assignment statements.
Readability	Appropriate comments are included. Meaningful identifiers used. Proper indentation and line spacing used.
Well formatted output	Output should be well formatted with appropriate messages displayed. Numbers are shown with appropriate precision.

SUBMISSION:

All completed work should be submitted online through Moodle before or on the due date provided.

SUBMIT AS EARLY AS POSSIBLE. ONLY ONE SUBMISSION IS ALLOWED. IF RE-SUBMISSION IS NECESSARY, YOU ARE REQUIRED TO REMOVE THE EARLIER SUBMISSION AND THIS MUST BE DONE BEFORE THE DUE DATE. OTHERWISE YOU WILL BE PENALIZED FOR LATE SUBMISSON.

DUE DATE:	**WEEK 11**

PENALTIES FOR LATE SUBMISSION:

Penalties apply to all late work, except if student academic consideration has been granted. Late submissions will attract a penalty of 25% of the assessment mark per day including the weekend. Work more than (3) days late will be awarded a mark of zero.

PLAGIARISM:

When you submit an assessment task, you are declaring the following
1. It is your own work and you did not collaborate with or copy from others.
2. You have read and understand your responsibilities under the University of Wollongong's policy on plagiarism.
3. You have not plagiarised from published work (including the internet). Where you have used the work from others, you have referenced it in the text and provided a reference list at the end ot the assignment.

COURSEWORK SPECIFICATION

OBJECTIVES:

Following completion of this task, students should be able to:

▪ Write Java applications using object and files.

Question 1

In this lab task you are required to write a Java application that reads and writes objects from/to a file.

Step 1

Declare and implement a class named `InventoryItem` based on the class diagram given below:

```
                    InventoryItem

- serialNum : int
- description : String
- costPrice : double
- sellingPrice : double
- quantityInHand : int


+ InventoryItem()
+ setSerialNum(int) : void
+ setDescription(String) : void
+ setCostPrice (double) : void
+ setSellingPrice (double) : void
+ setQuantityInHand(int) : void
+ getSerialNum() : int
+ getDescription() : String
+ getCostPrice () : double
+ getSellingPrice () : double
+ getQuantityInHand() : int
+ getTotalRevenue() : double
```

Write a Java application that performs the following operations:

– Prompt the user to enter information for several InventoryItem objects that are stored in an ArrayList.
– Save all the InventoryItem objects in a simple csv text file (i.e. comma-separated values format).
– Read all InventoryItem objects from the file and display them in tabular format including the projected total profit for each item and overall inventory as well.

The following shows an example simple csv text file format. Each line represent an object's data.

```
12534,office chairs,75.0,100.0,25
17654,coffee table,350.0,700.0,5
18834,dining table,1500.0,2750.0,10
14214,sofa set,2000.0,3500.0,7
```

Hint: For writing, you can write to file using the write() method from the PrintWriter class. For reading, you can use the BufferedReader method to read one line and store as String. Then use the split() method from class String to split each values before storing them in your object.