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:	**Assignment 3**	Coursework Percentage:	12%

ASSESSMENT CRITERIA:		
Correctness	The application should produce the correct result as stated in the specification.	2 marks
Class design and implementation	Design of class that follows the specification provided.	2 marks
GUI Design	Include all components specified. Suitable layout managers used.	3 marks
Event Handling	Correct event handling done.	4 marks
Readability	Appropriate comments are included. Meaningful identifiers used. Proper indentation and line spacing used.	1 mark

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:	**Friday, 21st June 2019 (11:55 pm)**

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.

Plagiarism will not be tolerated. Students are responsible for submitting original work for assessment, without plagiarising or cheating, abiding by the University's policies on Plagiarism as set out in the University Handbook under University Policy Directory and in Faculty handbooks and subject guides. under University Policy Directory and in Faculty handbooks and subject guides.

COURSEWORK SPECIFICATION

OBJECTIVES

This assignment aims to provide you with some experience in writing codes using Java programming language that covers the following topics:

- GUI and Event Handling

Remember that:
1. **All programs should be able to run on the lab's computers.**
2. **You must put the following information on the header of each text and source file you will be submitting in this assignment:**
   - **Student's full name:**
   - **Student's ID:**
   - **Modification Date:**
   - **Purpose of this file (or program):**
3. **Assignments that are not able to be compiled will result in zero mark given to the assignment.**
4. **You must only use the Java features that have already been covered in the lectures**

TASKS:

For this assignment, you are required to write a Java application using GUI for a small company selling laptops. The application will be used by the staff selling the laptop. The user may choose the details of the laptop to be sold depending on the buyers request (the product with the chosen specification must be available). The application should allow the user to enter the details of the laptop to be sold, determine whether the product is available calculate the sales amount, keep information of the sales done, and display sales information.

The application should display a frame containing the following:

- The company name – displayed on a JLabel
- The image of the laptop – shown on a JLabel
- The laptop brand and model (e.g. HP ProBook 650, Dell Inspiron, Apple MacBook Pro) – a JComboBox is used to display the options. Include an event handling for this component where the image should change according to the model chosen
- CPU (e.g. intel CORE i5) – JComboBox
- RAM (4 GB/8 GB/16 GB) – use JRadiobutton to provide this selection
- Screen Size (e.g. 15 inches, 14 inches) – also represented by JRadiobutton
- Color – a simple JTextFiled for the user to type
- Additional Items (e.g. Additional RAM, laptop bag, antivirus software) – several JCheckBox where the user may choose more than one option
- Whether the laptop has a touchscreen or not – a single JCheckBox
- A JButton to make payment – implement an event handling method for this button. When the user click on this button it will display another JFrame to show the sales details and process the payment. (sample output shown below)

- A JButton to save the sale record – implement an event handling for this button. When the user click, it should create a Laptop object based on the details set on the frame and store the object in an ArrayList.
- A JButton to show the overall sales – implement an event handling method for this button to display all sales done so far on a message dialog box.
- A JButton to quit from the application – implement an event handling for this button to allow the user to quit.

The payment frame for the make payment button should have the following components
- A JTextArea that summarizes the sales details
- Total Price – an uneditable JTextField to display the overall charges
- Discount rate – a JTextField where the user can type the discount rate and should be initialized to zero
- Price after discount – an uneditable JTextField
- Payment – a JTextField where the user can enter the amount paid
- Balance – a JTextField to show the balance after payment is done
- A JButton to return back to the main frame – implement an event handling method for this button that will close the payment frame.

Your application should declare a class called Laptop to keep the laptop details as stated above. Include also a field to store the calculated price. The total price should depend on the brand, model and other options chosen. You are required to use reasonable prices for each of the options to perform the calculation in your application.

The following shows example output. You may have a different layout if you wish but the components must be the same.
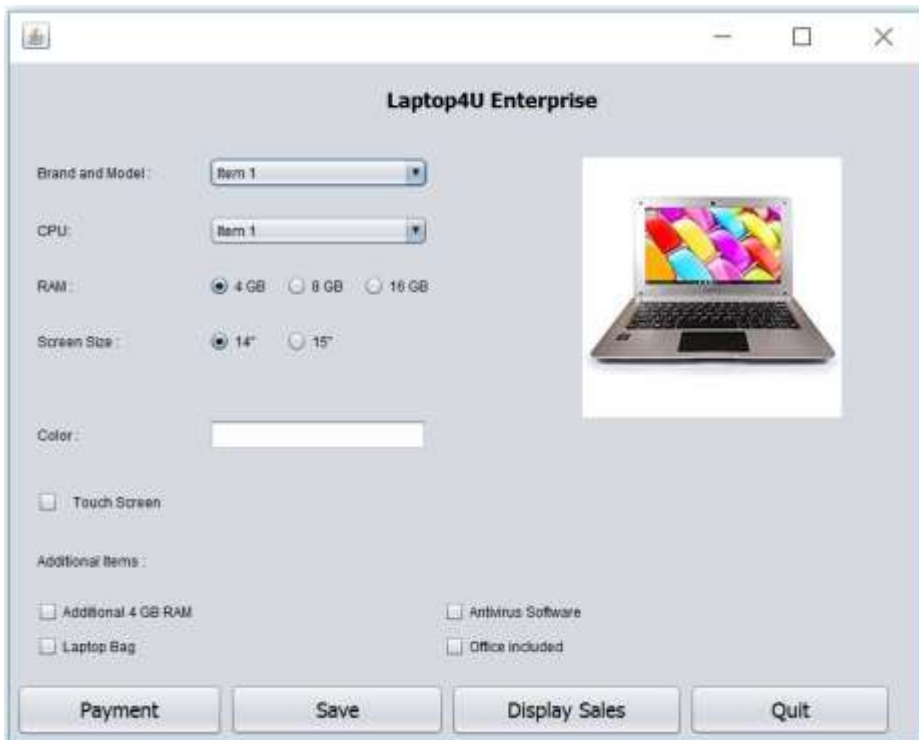
Total Price:	

Discount:	

Price After Discount:	

Payment:	

Balance:	

Back

The details of the laptop sold should be displayed in this text area