

ASSIGNMENT COVER PAGE

Programme		Course Code and Title	
Bachelor of Computer Science (Hons) Bachelor of Computer Science (Hons) In Computer & Network Technology Bachelor of Information Systems (Hons) Bachelor of Software Engineering (Hons)		CET3013 (Mobile Application Development)	
Student's name / student's id		Lecturer's name	
		Lai Kim Min	
Date issued	Submission Deadline		Indicative Weighting
Week 4 -02/10/2023	Week 6 - 16/10/2023		30%
Assignment [1]	Pizza Calculator Application		

This assessment assesses the following course learning outcomes

# as in Course Guide	UOWM KDU Penang University College Learning Outcome
CLO1	Discuss Android applications components and resources
CLO4	Create a complete app with appropriate software engineering techniques that complies with Android Design guidelines
# as in Course Guide	University of Lincoln Learning Outcome
CLO1	N/A
CLO2	
CLO3	
CLO4	

Student's declaration

I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.

Student's signature:

Submission Date:

Dates and Mechanisms for Assessment Submission and Feedback

Mechanism for handout to students	Open Learning
Mechanism for submission of work by student	<i>Softcopy online submission via Open Learning</i>
Date by which work, feedback and marks will be returned to students	30 th October 2023
Mechanism for return of assignment work, feedback and marks to students	Feedback will be provided by a marking template. This will be available to students via Open Learning. The discussions at the walkthroughs will also provide informal feedback

COURSEWORK SUBMISSION GENERAL INFORMATION

Academic Integrity Statement

You must adhere to the university college regulations on academic conduct. Formal inquiry proceedings will be instigated if there is any suspicion of plagiarism or any other form of misconduct in your work. Students must **NOT** collude with other groups of students or plagiarize their work.

We practice zero tolerance towards plagiarism, and we use Turnitin to evaluate the similarity index. Your similarity index score must not exceed 20%.

Your tasks must be your own work. Unless the use of Artificial Intelligence (AI) is permitted in your assessment task, using AI to complete your assignment is a form of plagiarism.

Nature of the submission required

A softcopy of your assignment in **PDF version** should be submitted to lecturer, no later than the date and time stipulated on the cover sheet. In addition, an electronic copy of your work must be submitted to Turnitin. The first page of your report, immediately after the cover page, must be a page from Turnitin clearly showing your name and your Originality Score (Please refer to [submission arrangement](#)).

Diagrams may be used where they are helpful to support your arguments or description. If they are not your own work, the source must be referenced. Please help us to handle and mark your work efficiently.

Please take note for group submission, only **one submission per group**. This will contain both the group and individual elements. The individual element must be clearly labelled to indicate which group member completed the task.

Documentation guidelines

Student is required to submit a **SOFTCOPY** of the report and ensure that it use the following formatted styles: 1) Font type: **ARIAL**, 2) Font size: **11 pt.**, 3) Line spacing: **Single spacing** and 4) Page layouts: **Justify**. Please make sure you have proper format alignment for all paragraphs, following standard writing style and use **HARVARD CITATION STYLE** for citation. Please include a **HEADER** with the following information: **Student ID, Student name, Course code and Assignment type**. Please also include a proper cover page for your submission which contains information about the students, assignment, course, and department with KDU and University of Lincoln (UoL) logos on top. Also include page number and list of references, which is shown in the last page.

Penalties for Late Submission

For late submission of this Assignment, a penalty of a reduction by 10% of the maximum mark may be applicable for each Calendar Day or part thereof that the submission is late. An Assignment submitted more than **TEN** Calendar Days after the deadline will have a mark of zero recorded for this Assignment.

Submission arrangement

1. Cover page
2. Turnitin similarity report
3. Table of Content
4. Main Report
5. Reference List or Bibliography List (whichever applicable)
6. Marking Rubric (in landscape orientation)

ASSIGNMENT SPECIFICATION (INDIVIDUAL ASSIGNMENT)

You are required to build a simple Discount Calculator App to let your customers shop effortlessly. You will need to implement the necessary resources, and event listeners to accomplish this task.

The user is required to enter the sales price, discount and tax rate. Then the app will show you the price after the discount. The app should allow users to select two common types of discounts namely Percent Off or Fixed Amount.

For the Percent Off option, if a good costs RM45, with a 10% discount, the final price would be calculated by subtracting 10% of RM45, or equivalently, calculating 90% of \$45.

$$\mathbf{10\% \text{ of RM45} = 0.10 \times 45 = \text{RM4.50}}$$

$$\mathbf{\text{RM45} - \text{RM4.50} = \text{RM40.50}}$$

For the Fixed Amount option, given that the good costs RM50, you have a discount coupon for RM10 off. This would mean subtracting RM10 from RM50 to get the final price ($50 - 10 = 40$).

$$\mathbf{\text{RM50} - \text{RM10} = \text{RM40.00}}$$

The overall design is up to the student's preferences. However, you are required to design the interface with Human Computer Interaction (HCI) consideration to speed up the discount calculation and reduce the user's input. Apply appropriate design features by using suitable colours, images, backgrounds, and font sizes.

The application should expect to perform the following operations:

- Create one or more classes to represent the data layer and presentation layer. Provide necessary attributes, operations and business logic. You should extend the view model class to the ViewModel of the Android Jetpack library for data persistence purposes.
- Create two (2) display views namely portrait and landscape mode.
- Provide appropriate input validation if necessary. Make sure the button only be enabled, and therefore clickable, after the user has entered all the required inputs appropriately.
- Create an appropriate string resource for each piece of text.
- Use the appropriate device or built-in emulator to test your application.

Submission:

- 1) A softcopy report in PDF format with the following details:
 - Title page (Pizza Calculator Application). Include the name and student ID.
 - A brief report about the components, design themes, and GUI widgets that applied in the app development.
 - A simple screenshots of the application (portrait and landscape modes).
 - All the test cases as stated above.
 - A list of bugs/weaknesses and/or strengths in your system.
 - Discuss how the course affected you, reflecting on what you have achieved. Please include in your report what went well; any design/implementation problems encountered and how you solved them.

- An appendix with Listings of any code (source code). *Do not include automatically generated code.*
 - Turnitin report for plagiarism checks.
 - Create a brief screencast recording (including screen and sound) demonstrating the key functionalities of the system. This can be created using any suitable software (e.g. Camtasia or Jing) and hosted securely on the cloud. Submit the relevant URL in the text file for evaluation purpose.
- 2) Upload the following items through Open Learning:
- Android project folder. You can use the export zip feature in Android Studio to save all your project files
 - Report in softcopy format
 - Turnitin report in softcopy format.

<p align="center">CET3013/MOBILE APPLICATION DEVELOPMENT</p> <p align="center">MARKING RUBRIC – ASSIGNMENT 1</p> <p align="center">Building App with Basic Android Views and View Model</p>									
Section 1 (20%)									
LEARNING OUTCOME	MARKING CRITERIA	SCALE							
		Fail (0-49)	3 rd Class (50-59)	2 nd Lower Class (60-69)	2 nd Upper Class (70-79)	1 st Class (80-100)	MARKS/COMMENTS		
							100%	Weightage	Actual Marks
CLO 1	Report (20%)	A poor piece of documentation has been produced. The coverage is unclear, and/or there are significant omissions	A fair piece of documentation has been produced, although there are some weaknesses—either the coverage is not particularly clear, or some aspects have been omitted	A fair piece of documentation of the work undertaken but not in outstanding ways.	A good piece of design documentation has been produced, providing detailed and clear coverage of the aspect concerned, although there may be a number of minor flaws which prevent it being regarded as excellent	An excellent piece of documentation has been produced, providing full and clear coverage of the aspect concerned		0.2	
TOTAL (20%)									

Section 2 (80%)									
LEARNING OUTCOME	MARKING CRITERIA	SCALE							
		Fail (0-49)	3 rd Class (50-59)	2 nd Lower Class (60-69)	2 nd Upper Class (70-79)	1 st Class (80-100)	MARKS/COMMENTS		
							100%	Weightage	Actual Marks
CLO 4	Fitness of Purpose (50%)	Little or no attempt to implement the feature correctly	A partial implementation of the feature, but some aspects are incorrect and not particularly well coded. May give rise to run-time errors.	A complete implementation of the features with some flaws and not in exceptional way.	A mostly complete implementation of the feature which works correctly but with minor flaws	An excellent implementation of all the feature and clearly coded		0.5	
	Build Quality (30%)	Poor build quality provided according to the Android and general coding standard	Partial implementation and some aspects did not conform with general coding standard	Fair build quality provided according to the Android and general coding standard	Good build quality provided according to the Android and general coding standard	Excellent build quality provided according to the Android and coding standard		0.3	
Total (80%)									
Overall Score (100%)									