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**FACULTY OF SCIENCE AND TECHNOLOGY**

**COURSEWORK FOR THE  
BIS(HONS) IN MOBILE COMPUTING WITH ENTREPRENEURSHIP; YEAR 2  
BSC (HONS) SOFTWARE ENGINEERING; YEAR 2**

**ACADEMIC SESSION 2020; SEMESTER 2,3,4**

**MBC2014 / CSC2074: MOBILE APPLICATION DEVELOPMENT I / MOBILE  
APPLICATION DEVELOPMENT**

**DEADLINE: 7 May 2021**

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**INSTRUCTIONS TO CANDIDATES**

- This assignment will contribute 20% to your final grade.
- This is an individual assignment

**IMPORTANT**

The University requires students to adhere to submission deadlines for any form of assessment. Penalties are applied in relation to unauthorized late submission of work.

- Coursework submitted after the deadline but within 1 week will be accepted for a maximum mark of 40%.
- Work handed in following the extension of 1 week after the original deadline will be regarded as a non-submission and marked zero.

**Academic Honesty Acknowledgement**

"I .....Ng Jih Bin....., (student name). verify that this paper contains entirely my own work. I have not consulted with any outside person or materials other than what was specified (an interviewee, for example) in the assignment or the syllabus requirements. Further, I have not copied or inadvertently copied ideas, sentences, or paragraphs from another student. I realize the penalties (*refer student handbook undergraduate programme*) for any kind of copying or collaboration on any assignment."



(Student's signature / Date)

[This paper contains ONE question printed on TWO pages]

## **Task and Deliverables**

**You're required to submit the project source code (zip in one file) to the eLearn.**

### **Question**

You're required to build a complete GeoQuiz Android application that fulfil all the requirements stipulated in the **Lecture 3 to 6**, including the challenges below:

- In addition of the Next Button, add a Previous Button  
Add a button that the user can press to go back one question.
- Preventing Repeat Answers  
Once a user provides an answer for a particular question, disable the buttons for that question to prevent multiple answers being entered.
- Graded Quiz  
After the user provides answers for all of the quiz questions, display a Toast with a percentage score for the quiz.
- Reset Quiz  
Add in a button to reset the Quiz (to enable all the buttons and reset the scores).
- Closing Loopholes for Cheaters  
GeoQuiz has a few major loopholes. Here are the loopholes that you need to close:
  - Users can rotate CheatActivity after they cheat to clear out the cheating result.
  - Once they get back from CheatActivity, users can rotate QuizActivity to clear out mIsCheater.
- Limited Cheats  
Allow the user to cheat a maximum of three times. Keep track of the user's cheat occurrences and display the number of remaining cheat tokens below the cheat button. If no tokens remain, disable the cheat button.
- Result Summary  
Add a 'Result Summary' button in QuizActivity, when user click on it, will bring the user to a new page showing the summary of the Total Question Answered, Total Score and Total Cheat Attempts.
- Design and develop one additional feature that may improve the GeoQuiz app.  
Note: For the additional function you have developed, write a short paragraph to explain the rationale and reasoning by providing justification that supports the decision. You may use the sample table below.

<b>Features, Functions, Or Widgets</b>	<b>Justification/Reasons</b>
Ending the Quiz	GeoQuiz questions will be endless if a feature to end the quiz is not implemented. Thus, to end the quiz, I implemented an alert dialog that will show an alert when all questions are answered. Besides that, I also added a reset button and a result button into the alert dialog. The reset button will restart the quiz, and a result button that will show the results of the quiz after finishing
Splash Screen	Implementing a splash screen can help the app be more welcoming to user, helping to create and preserve a positive first impression. Splash screen can also help to set an expectation on what type of experience the user is going to have, as well as giving users an insight on what the app is all about. It can also show users that the app will not crash and make waiting time to be more manageable.

## **Marking Scheme**

<b>Criteria</b>	<b>Reference Marks</b>	<b>Marks</b>	<b>Remarks</b>
<u>Features &amp; Coding</u> Ability to code a working app according to the given requirements/ instructions. Able to fulfil all the functionalities and align to the design. A robust app that able to caters for all the scenarios and follow the best Android programming structure and practices.	<b>15</b>		
<u>Implemented additional feature</u> Ability to think and add in appropriate additional non-required function(s) that enhance the purpose of the app	<b>5</b>		
<b>TOTAL</b>	<b>20</b>		