# MOBILE APPLICATION DEVELOPMENT

## COSC25423

## Android Game

## Assignment 2 (30 marks)

You are to implement an Android game and you have freedom to come up with your own game ideas. The game can be one of the following types: trivia, adventure, role playing, educational and puzzle and you need to complete the game proposal using the given template for approval of development. Your game needs to demonstrate the following functional, non-functional requirements and other requirements:

**Functional Requirements:**

- Must provide the player a menu option to change the setting or to pause game. (Be aware that some devices don't have the hard menu button)

- Must allow the user to save and resume the game

- Must have some AI (Artificial Intelligent) for enemies/obstacles

- Must have different levels of difficulty and the enemies need to be smarter after each round

- Must detect internet connection and turn it on when storing scores on the cloud

**Non-Functional Requirements:**

- Store scores on the cloud

- Use soft-button or touch or hardware sensors for navigation

- Apply one game engine for your game

- Sound and animation

- Your Target Android Version should be 4.0 (API Level 14) in order to test with real devices provided by the course.

**Advanced Functionality (Bonus Marks)**

To receive these bonus marks your application must provide the following additional functionalities:
- Multiplayer or social game

    *Social games are a structured activity which has contextual rules through which users can engage with one another. Social games must be multiplayer and have one or more of the following features: turn-based, are based on social platforms for providing users with an identity and are casual.*

**Other Requirements:**

- A requirement of this assignment is to write a "How-to page" document of a challenging technology/technique or algorithm that you encountered and used while developing your game.

  <u>What is in a "how-to" page?</u>

  A "How-to" page explains with examples how to accomplish something with Android games or requisite tools. For example, explain and give an example (code or screenshots) on how to navigate a character using hardware sensors. Do not plagiarize!

  <u>Structure of a "How-to" page:</u>

  - Introduction
  - When should you apply this? (Optional)
  - Advantages & disadvantages
  - Requirements
  - Steps & Screen shots
  - Reference

**Additional Information:**

- You will be able to borrow a phone for installing and testing purpose. Please register with Ms. Di through [di.nguyen@rmit.edu.vn](mailto:di.nguyen@rmit.edu.vn) !

**Submission Instructions**

You must create a folder under the shared COSC2543 Google Drive folder [http://goo.gl/TghJRv](http://goo.gl/TghJRv).
Folder name should follow this format sXXXXXX(StudentName)_ sXXXXXX(StudentName)_GameName.

What must be submitted?

- The approved game proposal
- Your project: should be implemented using eclipse and exported as a compressed .zip archive.
- A `notice.txt` file (Selected game engines & usage of code/algorithms/3rd party libraries)

**Do not** use any other compression formats - use of other formats (e.g. tar.gz, RAR, etc.) may lead to delays in marking and/or a deduction of assignment marks.

**Important Regulations**

- You can choose your preferred game engines but need to write it down in your `notice.txt` file

- Where you do make use of other references, please cite them in your work.

  - Any usage of code/algorithms/3rd party libraries should be included in a `readme.txt` file