COMP H2033 Interactive Multimedia   Feb 2014
Module leader: Dr. Matt Smith

Individual game project

IMPORTANT: Academic Honesty

This assignment is an **individual project**. The work you submit must be your own. It is fine for you to ask a lecturer or fellow student for assistance with the project, but the actual work created and submitted must be your own. Plagiarism and academic dishonesty can lead to failure of the module and other penalties outlined in the Institute's rules and regulations.

Although you may download and use images and multimedia resources from other web sites for this project, **you must declare each of these sources**. The design of your system and the coding of the individual components must be your own. Your documentation must make it very clear which aspects of the project are:
- the work of others
- your adaptation of other's work, and what your adaptations were

Discuss how to best declare the use of work from other sources with your lecturer(s).

By submitting your project for assessment you agree to the following:

"The material contained in this assignment is the author's original work, except where work quoted is duly acknowledged in the text. No aspect of this assignment has been previously submitted for assessment in any other unit or course."

1. About the project

The project is a way for your to demonstrate your understanding and mastery of software development, and interactive multimedia – i.e. the project is your way to demonstrate what you have learnt in this module and related modules in the course. To complete this assignment you are required to

   (a) design an ORIGINAL interactive, 3D multimedia computer game
   (b) develop your game in Unity coded in C# (NOT JavaScript!)
   (c) demonstrate/defend it to your lecturer(s)

2. Demonstration/Defense

You will be required to show your project work to your lecturer. This will involve demonstrating its features and answering questions about how the project was designed and constructed.

NOTE:
- No grade will be given for projects that have not been individually demonstrated/defended to the lecturer.

3. Requirements

The game must demonstrate:
- Using buttons to navigate between scenes (main menu / instructions / level 1 / game lost etc.)
- detecting 'collisions' between player and objects, or objects/objects
- animation of object positions / properties
- instantiation of 'prefab' objects
- background sound (e.g. music)
- sound effects when certain events happen
- collecting / picking up objects
- at least 3 levels
  - level 1 = very easy (user getting to know how to move around in the game world)
  - level 2 is little bit challenging, but still every user should be able to complete it easily
  - level 3 harder to complete
    (in some non-trivial way, e.g. not just reducing the time available – actual extra elements/challenges in this level …)

There needs to be a 'reason/motivation' for the game, examples:
- to collect 5 key's to open a door / treasure chest
- to kill all the bad guys and save the princess / prince
- to survive for as long as you can, avoiding the man-eating crocodiles or whatever.
- To reach the pot of gold at the end of the rainbow
- To be able to complete every maths question correctly …

Examples of the type of project you are to create include:
- maze or island or city game
- driving game
- number puzzle game (e.g. pick up numbers and operators to make a sum,
  - e.g. answer = 12, so need to pick up 4 then "times" then 3
  - (but more sophisticated …)
- language learning game
  - given image of cow, need to pick up word "bo" (Irish for Cow)
    - or collect word and picture in sequence
    - (but more sophisticated …)
  - need to collect 5 correct names to progress to level 2
    - level 1, animals – pictures and names
    - level 2, numbers and operators
    - etc.

4. Marking criteria

The general criteria upon which the project will be assessed are:
- Originality / Technical challenge / Completeness / Correctness / Code Quality

5. DEADLINES

- Part 1 – concept
  - Week 6 lab session (bring 2 pages into lab session: one page TYPED + screen sketch)
- Part 2 – design
  - Week 9 – Monday 24th March – Moodle upload before 10:30am
  - Submit class diagram + Doxygen folder + state chart diagrams + s/w roadmap
- Part 3 – game software
  - Week 12 – Mon 28th April – Moodle upload before 10:30am
  - (full Unity project folder + PC standalone build)

Note – EMAIL submissions are NOT accepted
Note – large files take a LONG TIME to upload to Moodle – don't leave it to the last day!
   Uploading from a college desktop computer will be MUCH faster than via wifi or from home …