M2G605201

Coursework 1
Session 2015 ~ 2016

Game Programming 1

Plagiarism

Attention is drawn to the University regulations on plagiarism. Whilst discussion of the coursework between students is encouraged, the actual work has to be undertaken individually. Collusion may result in a zero mark being recorded for the coursework for all concerned and may result in further action being taken.

University regulations, codes & policies:
http://www.gcal.ac.uk/student/about/regulations/index.html

Plagiarism and cheating:
http://www.gcal.ac.uk/student/coursework/regulations/plagiarism.html

Bobby Law

Task

Develop a 2D game of your choosing using the C++ Classes provided. These Classes can be modified as required. The chosen game must comply with the criteria listed below.

Specification

The following minimum specification (worth up to 40%) should be adhered to:

- An introduction screen showing the name of the game and the keys to be used to play it.
- Sound; applicable to the scene. This should include theme music and sound effects.
- Appropriate use of basic collision detection.
- Appropriate sprites for the game.
- An appropriate background for the game.
- A scoring system which must be visible.
- An end screen saying "Game Over" and the players score. There should also be the option for the player to replay the game.

Extra

The above specification constitutes the core of the game. Extra marks (worth up to 20%) can be gained by implementing the following:

- Implement per pixel collision detection (up to 6%).
- Use XInput to create a class to handle input via the Xbox 360 controller (up to 6%).
- Implement a Screen/Menu manager (up to 8%).

Deliverables

The following should be submitted:

➢ Development Blog (10%) - must show the process of development from concept to fruition. Only visible to your Lecturer. (Use GCU Learn Journal/Blog facility)

➢ Use GitHub to create a code repository which should be visible to your Lecturer. GitHub can be found at https://github.com/ Also have a look at https://github.com/features/projects for GitHub features.

  ➢ A cover page clearly stating: Name, Matriculation number, Course and the following disclaimer:

   I confirm that the code contained in this file (other than that provided or authorised) is all my own work and has not been submitted elsewhere in fulfilment of this or any other award.

   Signature.

➢ Documentation including:

  ➢ An explanation of the code used to generate the game. This section should be written using a coherent paragraph structure and not bullet points (12%). It should also include a Class Diagram (5%). Use your *individual wiki page*.

- ➢ All code should be *fully* commented.
- ➢ Include a reference section indicating web sites, books etc used. (3 %)
- ➢ A set of Storyboards for the game. (10%)
- ➢ Create a short demo video of the game (no more than 5 minutes in length), which should be ***posted as your last blog entry***.

Marking Scheme

Marks for this coursework will be awarded on the following basis:

	Mark
Code	
Intro Screen	6
Sound: Theme Music	3
Sound: Effects	4
Sprites	5
Background	3
Collision detection	4
Keyboard Control	5
Game Over	5
Replay	5
Sub Total	**40**
Documentation	
Code Explanation	12
Class Diagram	5
Storyboards	10
References	3
Development Blog	10
Sub Total	**40**
Extra	
Per Pixel collision detection	6
Gamepad input	6
Implement a Screen/Menu manager	8
Sub Total	**20**
Total	**100**

Submission

Submission of this coursework should be made electronically via **GCU Learn Assignments** and **GitHub** by **Wednesday 16th December 2015** no later than **17:00**. Late submissions will not be tolerated and will lead to the deduction of 10% of the total mark awarded.

For the GitHub submission of the coursework, you should create a branch called **GP1-Submission.**

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