**UECS3273 May 2019: Programming with Game Engines**

**Quiz [10%]**

Task: Open written quiz [no conversing, but can bring own resources]. The type of question will comprise of questions related to the Unity engine and game engines in general.

Students are to submit as a written paper quiz with the given answer sheets.

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**Project [Group of up to 2; 40%]**

**\* If you are in a project group, please indicate on write the sections that each member contributed [penalties will be given to the lazy and those who plagiarize]**

**Task:**

Develop a 2D side-scrolling platform game with the following criteria [Unity 2018.3.12.1f]:

* The program will only comprise of 1 level, but with a main menu and gameover scene.
* Character spritesheets are up to your choosing so long they are proportionally suitable to the game screen resolution of 1280\*980 pixels and cover a minimum of **FOUR [4]** animation states per character [e.g. standing idly, walking/running, jumping, dying, attacking]. The means of attack is up to your designs.
* The game should contain a means to defeat a set number of targets [at least 3] and the level must have platforms to jump onto. The targets should have behavior and can hurt the player in some manner and should have some sprite animations.
* The player character can be eliminated, but can also be respawned at a starting location/point.
* Sound and other assets can be taken from open-sources and SFXs must be included.

The student group is allowed to discuss with the lecturer about the chosen game genre or type of game to build and can be different to the above game, pending on its complexity and changes to the above criteria.

**Also, prepare a scheduled plan document about what type of game you/your group intend to build within given weeks: this includes the expected criteria of completion of the project for each milestone – as scores are given based on completion and fulfilment of the criteria list too. Also, make sure that the amount and complexity of criteria should be appropriate to the % of each phase/milestone completion [based on teaching plan]: [i.e. phase 1: 30% completion; phase 2: 70%, final phase 3: 100%.]**

The students must also submit a development document report, detailing the issues and technical developmental process of the project and technical designs, such as UML and class diagrams and other problem-solving solutions. This document should also include a self-development document to report on your progress, your tasks and distributions, technical and other issues encountered and how you dealt with them.

Student groups are free to show their progress during consultations, but must show their progress during the allocated tutorial weeks for the **2 Project Phase Assessments [dates are in the Teaching Plan.**

**Scores [40%]**: **Document Contents [6], Document Writing [2], Creativity [4], Project Completion [22: Phase 1 [4], Phase 2 [6], Final [10]], Scripting Quality & Project Organization [4], Presentation [2].**

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*Conservation of Project Scores: into the given syllabus/Teaching Plan scores, mainly for the sake of converting into the set scoring:*

***Lab Assessment 1\_Using Libraries:*** *Phase [1 [4] + 2 [6]] Assessments = 10%*

***Lab Assessment 2\_Building game:*** *Document Contents [6] + Document Writing [4] = 10%*

***Project\_Building Scene:*** *Presentation [2] + Creativity [4] + Scripting Quality & Project Organization [4] = 10%*

***Project\_Building Game:*** *Phase 3\_Project 1005 Completion Assessment [10] = 10%*

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**Project folder**: main folder name should written as **[Project\_studentA&studentB],** this should also contain all of the assets and are organized in accordance to Unity’s files and folder organization. The application must also include a published .exe file.

**Document format: as word file, written as [project\_studentA&studentB.docx] file; softcopy only.**

**Report format: Arial 12, 1.5 line spacing; with references, table of contents, title page.**

**Follow the rest of UTAR’s report format, including references if other rules are not mentioned here.**

All of these submissions must be burned into a DVD, with the students’ name, IDs and game title.

**Due week: Presentation: 12, Submission: 13**