

ASSESSMENT AND INTERNAL VERIFICATION FRONT SHEET (Individual Criteria)

Course Title	Advanced Diploma		Lecturer Name & Surname	NEIL AQUILINA	
Unit Number & Title		Programming for Computer Games			
Assignment Number, Title / Type		Research and Design – Home (24 Hours)			
Date Set		18/12/2020	Deadline Date	19/12/2020	
Student Name	Miriana Nicole Grixti		ID Number	264399m	Class / Group MSD 4.2A

<input checked="" type="checkbox"/>	Student's declaration prior to handing-in of assignment: ❖ I certify that the work submitted for this assignment is my own and that I have read and understood the respective Plagiarism Policy
<input type="checkbox"/>	Student's declaration on assessment special arrangements (Tick only if applicable) ❖ I certify that adequate support was given to me during the assignment through the Institute and/or the Inclusive Education Unit.
<input type="checkbox"/>	❖ I declare that I refused the special support offered by the Institute.
Student Signature:	mngrixti Date : 19/12/20

Assessment Criteria	Maximum Mark	Mark Achieved
KU1: Identify and describe different game engines for different tasks	5	
KU3: Describe file types for media assets	5	
KU4: State the relevance of compression settings in media assets	5	
SE1: Design and specify the details of the game to be developed, including a state machine	10	
Total Mark	25	

Assessor's feedback to student (If necessary, use reverse side of page for IV feedback on assignment brief / sample of assessment decisions)
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Programming For Computer Games 24hr Home Assignment:

Task1: Game Engines

Research 5 Game Engines.

1. Godot Engine:

- Godot uses its own programming language : GDScript ,C# ,C++ and supports also visual scripting.
- A game programmed using the engine is: RUN
- It is 2D and 3D

2. Unity:

- As programming languages Unity: uses C#, java.
- A game programmed using unity is : GooBall
- It is 2D and 3D

3. Unreal Engine 4:

- Programming Language uses: C++ and blueprints.
- A game programmed using unity is : Giant Bomb .
- it is a 3D creation platform

4. CryEngine:

- The programming languages it uses are C#,C++ and Lua.
- Game programmed using Cry Engine is: Crysis 3
- Supports 2d and 3d

5. Lumberyard:

- The programming language used: Lua and C++
- Game programmed using Lumberyard Engine: Star Citizen
- it is a 3D creation software

Task2: File Types for media assets:

a) Choose 3 image format in your own words:

SVG: Refers to Scalable Vector Graphics is use to define vector graphics ,it s file format enables 2 dimensional images to display in (xml) Extensible Markup Language on the web.

Png: Portable Network Graphic is a raster graphic file format and it is lossless mean that they don't lose data when compressed.

GIF: Graphic interchange format uses lossless compression it, Gif contains images and frames in a single file it is used for raster animated graphics on the web.

b) 2 types of audio formats explain each format:

Mp3: Stands for Mpeg-audio layer 3 it is a compressed audio file format for sound used to store songs.

WAV: Stands for waveform audio format it is an uncompressed file system used to store digital audio data it is used as standard pc audio.

Task3: Compression in Multimedia:

The importance of compressing in images:

The word compression in images means minimizing the image file size without losing its original quality. There are two ways of compressing images lossless reduces the file size and doesn't lose quality mean while lossy losses some quality. The main benefit of compressing images is to reduce the binary representation in that image meaning that the size of the file becomes smaller, for example if in a website there is an image which is compressed it will load faster and it will take less space. We can say that by compressing images one can have file sizes which take less space.

Explain in detail using diagrams how compression in an audio file system works:

Audio compression works by it compress into a smaller file there are two ways lossy and lossless. The lossy compression removes some original parts of the original and lossless means that when the file is compressed it will still have the same quality but it doesn't get much smaller.

Diagram:

