

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	Ishmael Galea	ID Number	276501L	Class / Group 4.2B

<input checked="checked" type="checkbox"/>	<i>Student's declaration prior to handing-in of assignment:</i> † 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"/> <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. † I declare that I refused the special support offered by the Institute.		
Student Signature:	Ishmael Galea	Date :	18/12/2020

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)

	Name & Surname	Signature	Date
Internal Verifier : Approval of <u>assignment brief</u>		For approval signature, please refer to electronic audit trail	
Lecturer / Assessor : Issue of results and feedback to student		For approval signature, please refer to electronic audit trail	
Internal Verifier : Approval of <u>assessment decisions</u> (Sample)		For approval signature, please refer to electronic audit trail	
Learner's signature upon collection of corrected assignment.			

Assessment Criteria
<i>KU1: Identify and describe different game engines for different tasks</i>
<i>KU3: Describe file types for media assets</i>
<i>KU4: State the relevance of compression settings in media assets</i>
<i>SE1: Design and specify the details of the game to be developed, including a state machine</i>

PCG Home Assignment 1

Ishmael Galea- SWD4.2B – 276501L

Task 1:

- Unity
 - Language: C-sharp
 - Game: Cuphead
 - Dimension: Both
- Unreal Engine
 - Language: C++
 - Game: Tom Clancy Splinter Cell
 - Dimension: Both
- Frostbite
 - Language: C++
 - Game: Battlefield 1
 - Dimension: Both
- Pygame
 - Language: Python
 - Game: Frets on Fire
 - Dimension: 2D
- Source 2
 - Language: C++
 - Game: Dota
 - Dimension: Both

Task 2a:

- JPG – A JPG image file is the most common used for any photos taken by a digital camera since this format allows the image to be compressed without losing much detail.
- GIF – A GIF image is very compressed but loses no quality. In a single file it holds and display a sequence of images that generate an animation.
- BMP – A BMP is used to store a bitmap. This is a 2d image that could be monochrome or coloured.

Task2b:

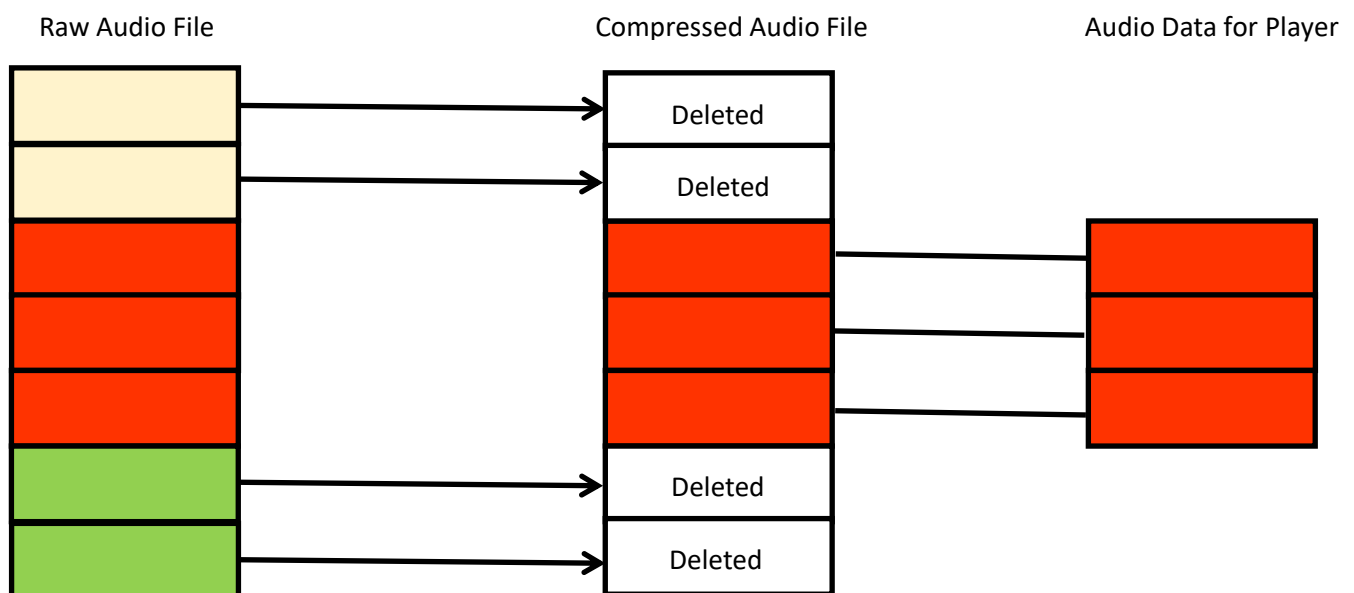
- MP3 – This is one of the most common audio file format since it keeps the audio quality similar to the original but takes less storage space.
- WAV – This file format is more used to save raw and uncompressed audio.

Task 3a:

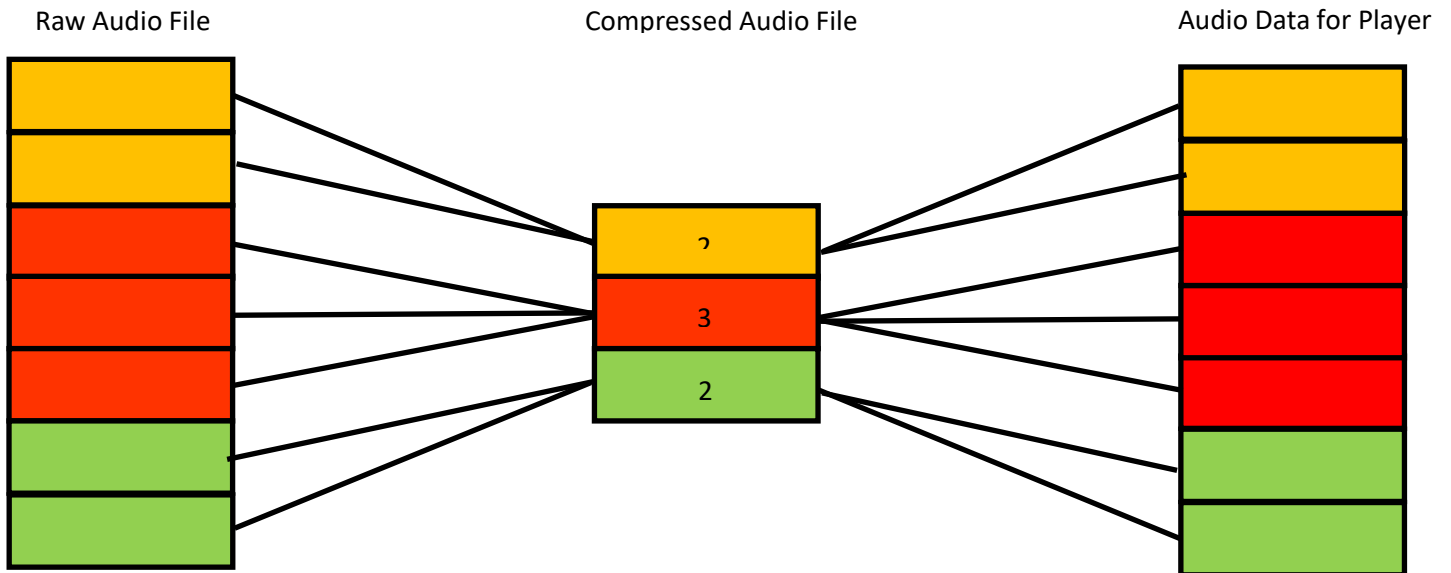
Image compression is when you decrease the size of the file without losing the quality of the image to an unacceptable level. This will allow for more images to be stored in a small amount of disk space. The most common file type for internet use is the JPG and GIF formats. The JPG is used for photographs or images, while GIF is used for line art or animations. When compressing an image there are two types which are lossy or lossless. Lossy compression is used when it is not that important if the image loses minor details. While lossless is when no detail can be lost and the entire image has to be kept like the original.

Task3b:

Lossy Compression: The audio file is divided into parts like noise or just redundant audio and removes it to hold the needed audio.



Lossless Compression: The media file is divided into sections that have similar sizes so that when compressed it will keep just one of the parts but has an indication of how many there was for the player to extract.



Task 4:

