Joel Camilleri Class 4.2SWB

Task 1: Game Engines (KU1) –

Unity

Unity supports three scripting languages, C# (it's primary language), Unity Script also known as JavaScript, and Boo.

Hearthstone (2014) was created using unity.

Unity is 2d and 3d engine

Godot

Godot supports three scripting languages GDScript, C/C++, C#.

The Interactive Adventures of Dog Mendonça & Pizzaboy (2016) was created using Godot.

Godot is both a 2d and 3d engine.

Solar 2d

Solar 2d supports lua as its primary programming language.

All That Remains: Part 1 - Bunker Room Escape Game (2020) was created using Solar 2d.

Solar 2d is a 2d engine only.

CryEngine

CryEngine supports C++ (Qt), Lua, C#

Investigator (2016) was created using CryEngine.

CryEngine is both a 2d and 3d engine

Gamebryo

Gamebryo uses C++ as its primary programming language.

Empire Earth II (2005) was created using Gamebryo.

Gamebryo is both a 2d and 3d engine.

Task 2: File types for media assets (KU3) –

A.

Jpg

commonly used raster format for web photographs. Since files are usually smaller, JPEG files are web friendly.

Png

It is the uncompressed raster image format most used on the internet. For digital art (flat pictures, logos, icons, etc. the (PNG) file format is suitable as it uses 24-bit color as a basis.

Gif

A file format widely used in software programs for images on the web and sprites.

GIFs use lossless compression, unlike the JPEG image format, which does not degrade the image quality.

B.

Mp3

In order to encode data using unreliable approximations and partial discarding of data, MP3 utilizes lossy data compression.In contrast to uncompressed audio, this enables a significant reduction in file sizes.

Wav

For storing audio data, track numbers, sample rate, and bit rate, the format uses containers. WAV files are lossless uncompressed audio and as such can take up quite a bit of space, with a maximum file size of 4 GB in about 10 MB per minute.

Task 3: Compression in multimedia (KU4) –

A.

When it comes to photos in web design, there is a great deal of misunderstanding and confusion. The greatest mistake is that people assume that the best way is to get the picture at its highest quality, but the problem with that is that as the quality increases, the file size usually increases. Although many people don't think about the size of the file as much, it's still quite important. Particularly when it comes to loading times, the file size is important. There needs to be a compromise between the quality of the picture and File size so that the picture still looks fine, but without too much room, it still loads easily. It is important to understand image types, file types, image compression formats and how the quality changes when it comes to image compression.

B.