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| CMGT Personal Portfolio Learning Outcomes template (v*1.7)* Name: Alex Wojtowicz Student number: 491887 | |
| Write your SMART formulated learning goals here:  **Learning outcome 1:** As a programmer, who wants to gain experience in Unreal Engine, I want to familiarize myself with the engine by learning how to load different levels, spawn and despawn items, how to create a simple functional UI (resources displayed, filled bar; a timer; text on screen).  CMGT Competence(s): | 1. Technical research and analysis | 2. Designing and prototyping Hours: 10  **Learning outcome 2:** As a programmer, who wants to gain experience in Unreal Engine, I aim to familiarize myself with the Unreal blueprint system by creating: a 3rd person player controller with working camera; NPCs capable of patrolling the area, detecting the player, and chasing them.CMGT Competence(s): | 1. Technical research and analysis | 2. Designing and prototyping Hours: 30  **Learning outcome 3:** As a programmer, who wants to be able to make games in Unreal Engine, I want to learn about sound and visuals - specifically triggering various SFX and VFX, playing appropriate animations (as well as potentially learn to retarget animations, useful for solo projects) etc, so that I can create a game that's more than bare bones functionality.  CMGT Competence(s): | 1. Technical research and analysis | 2. Designing and prototyping  Hours: 10  **Learning outcome 4:** As a programmer, who wants to gain experience in Unreal Engine, I want to learn how to create interactions within the game world, such as: handling fast moving projectiles, resource management (health, ammo, fuel), picking up objects and placing them back down, trigger style collisions (player can walk through object but XYZ happens while in contact), so that I have a starting point for creating various games using the engine.  CMGT Competence(s): | 1. Technical research and analysis | 2. Designing and prototyping  Hours: 30 | |
| **In-depth description of the learning activities.**   1. What do you want to learn? 2. What will the process be? How are you doing research? How will you be building, testing, and iterating? 3. How is this skill or knowledge important for your professional development? | 1. How to work in Unreal Engine. 2. Make a basic prototype “game” in Unreal. Create several different levels showcasing various functionalities. 3. Widen my skill set – many companies prefer Unreal Engine over Unity. |
| **The portfolio item.**   1. Describe the portfolio item. What will be the exact numbers, qualities, and characteristics of your portfolio item? 2. Why is this portfolio item relevant for your portfolio? | 1. The prototype “game” that shows off the functionalities + github project with descriptions etc. 2. Proves that I can make various simple games in Unreal Engine. |
| **Required input.**  Which specific and suitable resources will you need access to? | Unreal Documentation, potentially tutorials on youtube. |
| **Measuring goal achievement/**   * How will you measure your current level of skill or knowledge on the subject you selected? * How much will you improve your level of skill or knowledge? * At the end of your project, how will you determine the degree to which you have improved your level of skill or knowledge? | I have no Unreal Engine skills so far. One way of seeing the level of my skill improvement will be the amount of features I have been able to implement. |
| **Previous Learning Outcomes.**  Please paste the learning outcomes of modules here. Explain the relation with your current learning outcome and/or portfolio item, and/or other CMGT modules. | Personal Portfolio (or other CMGT module): *(1,2,3,4)*  Learning outcome: …  Short description of portfolio item: …  Relation to current learning outcome: (if applicable) … |

To learn:

- level loading system  
- Item spawning system  
- item despawning system  
- UI

- player character, enemy AI

- how to trigger SFX + VFX  
- how to retarget animations between models (useful for personal projects)  
- ~~how to trigger animations, animation transitions etc~~ (done)

- how to handle fast moving projectiles  
- resource management (health, ammo, fuel etc)  
- picking up objects, placing them back down (changing parents required?)  
- trigger-style collisions (player can walk through object but XYZ happens while in contact)