CMGT Personal Portfolio Learning outcomes template (v1.6)

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Learning outcome 1:

As an engineer I wish to increase my skill in being able to develop features and mechanics based on visual references and description as this might come in useful when working with clients that have abstract features in mind. To achieve this I will recreate a core feature from the game Super Liminal as shown in the following video. I will complete this feature before the end of the semester (week 4.8), the completion of which will be determined by my peer Kamilla Matuszak who will be given a small feature demo to determine whether the mechanic works on an acceptable standard.

CMGT Competence(s):

Technological | 2. Designing and prototyping

Designing | 5. Conceptualizing

Hours: 32

Learning outcome 2:

As someone studying to become a technical designer, creating interesting and captivating gameplay is an important skill to improve. To hone this skill I will create one level of a puzzle game primarily using the feature from Learning outcome 1 before the end of this semester (Week 4.8). To make sure this level Is created properly I will consult the design principles and game design construct from Game design (Term 1.2). My peer Kamilla Matuszak will determine whether or not this designed level will be sufficient through means of a peer review. For this peer review I will extend the already existing peer review document as she will also need to be able to see my design decision In my process document to properly assess my designing methods and skills.

CMGT Competence(s):

Designing | 5. Conceptualizing

Technological | 3. Testing and rolling out

Hours: 32

Learning outcome 3:

As an engineer, I wish to increase my ability to create qualitative, expandable, and readable code. An effective way to enhance this skill is to create concise and clear code comments summarizing my code. Before the end of the semester (Week 4.8) I will summarize and refactor the code I created within learning outcome 1 and 2 by researching correct and proper coding and commenting conventions. To assess whether this has actually Improved my codes quality, my peer Kamilla Matuszak will grant me a code review where we will determine whether the comments and naming conventions actually give the code more readability.

CMGT Competence(s):

Organizing | 9. Working in a project-based way

Organizing | 10. Communication

Hours: 20

In depth description of the learning activities

- 1. What do you want to learn?
- 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?

Learning outcome 1:

I wish to be able to create mechanics and features based on a given input and visual references to enhance my skills as a programmer, designer and creative thinker.

This will be done by creating a small demo scene showing off a feature I have created solely through a visual show off in a trailer. This demo will work as a sort of playground where a user can test the feature as much as they want, this will be tested by myself for functionality and will be reiterated on by bug fixing. The measurement of success for this is simply a functioning feature.

This skill is important as usually when working with designers as a programmer I have to work based on references and descriptions, being able to do more work with less Is therefore a useful skill to enhance.

Learning outcome 2:

I want learn to become a better level designer, this is (in my opinion) best done through practice.

This will be done through creation of a level based on the feature I created in learning outcome one, as part of the research for this learning outcome I will fill out a game design construct where I will figure out what the level needs to be entertaining, my peer Kamilla Matuszak will be testing this level and afterwards see the design choices and justification to see if they are sufficient, I will reiterate on her feedback.

This skill Is Important for my professional career as I want to become a technical designer. As a technical designer designing fun and Interesting level will show potential employers and recruiters that I can work with abstract features and create interesting and fun gameplay.

Learning outcome 3:

I want to make my code more readable for my programming peers, my future self and any potential employers.

I will create concise and clear comments and summaries of methods and classes that need explanation to increase the readability of my code. My peer Kamilla Matuszak has

worked with me in the past and knows my programming however, she has trouble reading and fully comprehending my code from time to time. I will test the commented code base on her to see if it becomes easier to understand. I will research common conventions for coding and code commenting to make sure that it follows the norm.

This skill is important because commenting and explaining code allows *me* to understand my code later down the line more easily. It also helps other programmers or potential recruiters to understand my code without having me next to them explaining it themselves. Allowing for an easier implementation during a project.

The portfolio item

- 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?

Learning outcome 1 & 2:

A unity project containing two scenes:

- -A showcase scene with no purpose other than showing off the mechanic I created in Learning outcome 1. This tool will work without bugs and allows the user to manipulate an objects size through the means of forced perspective.
- -A Level created using the mechanic from learning outcome 1. This level has multiple small puzzles where the player has to use the resizing feature in multiple different ways.

This item is relevant to my portfolio as it allows me to effectively show off my skills as a designer and a programmer, showing a passion for designing as well as skills in programming and the creation of tools and features.

Learning outcome 3:

A code base that has been given code comments and summaries in such a way that allows for a clear view of what the code does without too much knowledge about coding being required.

This is relevant to my portfolio as it shows the ability to make my code accessible to other engineers. It also makes code a lot more expandable in the future as it becomes more understandable by myself later down the line.

Required input

Which specific and suitable resources will you need access to?

-Information about forced perspective:

https://sites.google.com/a/pgcps.org/erhs-

photography/forced-perspective

- -Game design Construct from blackboard
- -Unity Documentation:

https://docs.unity3d.com/Manual/index.html

-Code Conventions:

https://learn.microsoft.com/en-

us/dotnet/csharp/fundamentals/coding-style/coding-

conventions

-Best code commenting practices:

https://stackoverflow.blog/2021/12/23/best-practices-

for-writing-code-comments/

-Code Commenting documentation:

https://learn.microsoft.com/en-

us/dotnet/csharp/language-reference/language-

specification/documentation-comments

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?

Learning outcome 1:

I will have my peer Kamilla Matuszak to test the feature extensively, I will first show her the trailer I used as a visual reference and then give her the project with the showcase scene. Kamilla will use this scene to test the created feature for bugs and determine whether the feature works as intended.

I want to Improve my skill to the point where I can consistently create features in a way similar to this learning outcome. I will determine this improvement based on the peer review of Kamilla.

Learning outcome 2:

I have had little to no opportunities through school to truly exercise my game design skills. This Is why I wanted to create a level that would allow me to use the tools I create myself. This Is useful for self-reflection on learning outcome one as well as showing off and improving my skill. I will ask Kamilla Matuszak, an engineer also Interested in design about her opinion on my learning outcome 2 and my design decisions inside of the process of this outcome. I will mostly determine myself whether or not I believe my skill has improved however, I will use Kamilla's peer review as a basis of this determination.

Learning outcome 3:

Kamilla Matuszak has worked with me in the past on a multitude or projects, within these projects we often have had code bases that we have shared. This allows her to have specific Insights to my coding capabilities and style. Usually, she has trouble understanding my code when the code base gets more complex. Requiring me to explain parts of the code to her. During my peer review I will ask her to also review my code and see if the code Is clear enough for her to understand. This allows me to accurately measure how much my skill has Improved. My goal Is to have my code be commented and explained in such a way that someone who hasn't seen my code or coding style before would be able to completely understand it simply from reading the comments and summaries.

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): (2 & 3)

Term 1: elective course. Immersive storytelling

Short description of portfolio item: A short Interactive story created in Twine.

Term 2:

A game made within Unreal engine 5 that showed knowledge in level design as well as showing an expansion within my skillset outside of unity.

Term 3:

A show case of multiple visual effects made within unity.

Relation to current learning outcome: N/A