

Changemakers: Creativity and Value Creation

Wednesday, February 4, 2026

10:33 AM

Assignment 1

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Task 1

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Q1: Innovation

Topic 1 Unit 1 documents the importance of innovation in order to advance our society for the better.

The first part of the Unit reminds us that innovation is everywhere. It is what created the world our society lives in today, everything that we use and interact with has been created by innovation. The houses we live in, the devices we use, the food we eat, they all came from discovery that led to change. Anyone can innovate, whether it is by pure force of will, or by coincidence, like Percy Spencer with his microwave that came from a melted chocolate bar. It is thanks to innovation that women now have an education almost equal to men, that we have less poverty, better health, and less deaths in the world. [1]

The second part teaches us about the four different industrial revolutions throughout history and explains how our current wave of innovation counts as the fourth industrial revolution. The first revolution created heating powered by coal and machines that could do the work of many at once. The second revolution was caused by the evolution of electricity, leading to inventions like the telephone. The third evolution came with the improved digital systems on computers. The fourth, which is the one we are currently going through, runs on refining computers and human communication. [2]

The third and final part is about being creative, unlocking that creative potential, and why many do not consider themselves as creative. Starting at a certain point in our education, we are no longer taught to be creative, we have to do our work in a specific way and we get points deducted if we don't follow a certain methodology. [3] Our current education system focuses on teaching us the facts and reprimanding us when we don't know them, not discovering the unknown and search for solutions that have never been found. This is why 75% of people believe they are not as creative as they could be [4].

When a problem remains unsolved, sticking only to the facts will not be enough, for if it was, the problem would be solved. In order to find a solution that has yet to be discovered, we have to think in ways others have not, have ideas that do not exist yet. This is why creativity is so important, it is what helps us evolve.

Q2: Ideation

Project ideas:

- Small fighting game to work on the fighting mechanics of the game I want to make (Preference at the moment)
- Cat game with a gacha system
- Replica of another game but made entirely by me (i.e. Buckshot Roulette)
- Website to make cross-stitching patterns

Project Title:

Understanding and Mastering 2D Game Mechanics to Create a Game With Action-Based Consequences

Aim:

Learn how to program with C# a 2D video game with fighting mechanics and different character abilities. The sprites will also be manually created using Resprite and, if possible, the music will be made using FL Studio. What is learned in this project will be used in the future to make a video game that discusses issues that are relevant today.

The aim of the game would be to teach the player about consequences and how your actions reflect on

you.

Objectives:

The objectives of this project are to research C# and various game development programs such as Godot. Another goal is to create the background and character sprites using the application Resprite. Individual tests will also be carried out throughout development to ensure that the game functions properly. Finally, as production progresses, all the different elements of the project will be integrated to form the complete game.

Description:

My game would not have a very defined story or goal in mind, the point of it is to learn how to create limited 2D areas that the characters can explore and to create a fighting system. Each fight would come with their own rewards, and at the end of the game, you will be judged based on the amount of rewards that you have.

Q3: Research

<https://docs.godotengine.org/en/stable/index.html>

This is the official Godot instruction manual, having many different pages that explain how to use the game engine.

[Godot Basics: Creating & Running a Project](#)

This video explains how to create a Godot project.

[How to make a Video Game - Godot Beginner Tutorial](#)

This video teaches all the basics to creating a video game on Godot.

Task 2

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Q1:

Solution:

The proposed solution is to design a game where the player's choices directly influence the progression of the story. During character interactions, different outcomes will be created based on the player's actions and decisions. Certain events in the game will also change depending on choices made earlier in the gameplay, allowing for a more dynamic and personalized experience. Finally, the game will include an ending system where the outcome evaluates and judges the player according to the actions they took throughout the game.

Technologies required:

Several tools will be necessary to complete this project. A computer will naturally be required to develop and run the game. The project files will be stored and managed using GitHub. The game itself will be developed using the game engine Godot, as it is heavily recommended for indie 2D game development [5], while character and background sprites will be created using Resprite, a mobile app I can use on my tablet [6]. Optionally, music for the game may be created using FL Studio [7].

Project timeline:

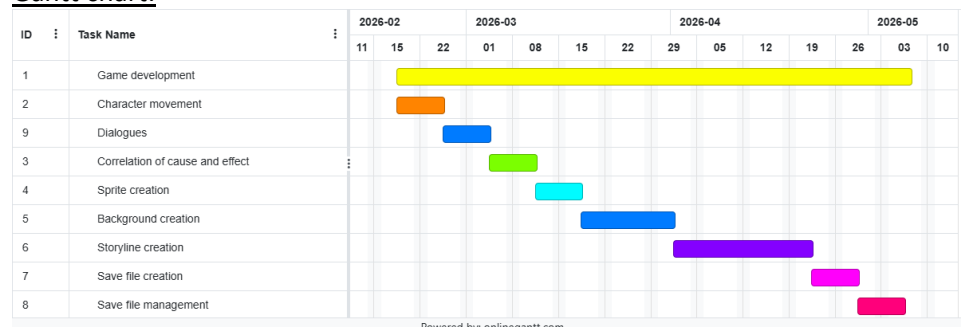
The project will be developed over a period running from February 18th to May 7th, 2026. During this time, the different stages of development, like research, asset creation, programming, testing, and final integration, will be completed to produce the finished game.

Task Schedule:

Task	Start Date & End Date
Character movement	Feb 18 - Feb 25
Character dialogues	Feb 25 - Mar 4
Correlation of cause and effect	Mar 4 - Mar 11
Creation of sprites	Mar 11 - Mar 18
Creation of background	Mar 18 - Apr 1
Creation of storyline	Apr 1 - Apr 22
Creation of save files maybe	Apr 22 - Apr 29
Creation of save file management	Apr 29 - May 6

Q2:

Gantt chart:



Q3:**Risks/Challenges:**

One potential challenge is not being familiar with the programming languages used by the game engine, such as C# or Python. To address this, the necessary concepts will be learned through tutorials and independent research. Another risk is the possible loss of project data; this will be attenuated by regularly saving and storing the files on GitHub so that progress is always accessible online from any device. Time management may also be a challenge, so organizing the workload using the planning charts created in class will help ensure the project stays on schedule. Creating sprites could also prove difficult, which is why the character and object designs will be kept simple and easy to animate using Resprite. Likewise, background design may be challenging, so the game's setting will remain simple to make the process more manageable. Finally, composing music will likely be difficult, as I have no experience in the field, so instead of relying on the 4 hour tutorial I saw on YouTube, I will be searching for smaller and more specific tutorials to help me use FL Studio.

Task 3

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Q1:

Development method chosen: Kanban

The development method chosen for this project is the Kanban approach [8]. The project has already been broken down into several individual tasks that will later be combined to create the final product. Each task will be organized into columns on Trello [9] to clearly track the current stage of work. Every task has also been assigned an estimated amount of time required for completion, with more complex tasks allocated more weeks than smaller ones. The tasks will be completed individually before being gradually integrated into the final game. As new features are successfully implemented, the corresponding task will be moved from the "Doing" column to the "Done" column, allowing progress to be monitored easily throughout the project.

Q2:

Requirement Specification:

1	Character Movement
P.1	Working on the movement on the characters, make sure they function properly and map limits work

2	Dialogues and cutscenes
P.1	Making sure the player can interact with NPCs and have some cutscenes

3	Creation of storyline
P.1	My game needs to have a story in order to properly work

4	Correlation of cause and effect
P.1	The point of the game is to teach about actions and consequences, so it is imperative that there is a cause and effect system

5	Fight mechanics
P.1	Develop how the characters fight with a health, attack, and defense system

6	Creation of sprites
P.2	Making sprites can take a long time, so if there is no other option, I might just take some already-existing character sprites

7	Creation of background
P.2	Making backgrounds can take a long time, so if there is no other option, I might just take some already-existing character backgrounds

8	Creation of menu
P.2	Having a small "start" menu, maybe also add a "quit" button or a "setting" button

9	Creation of save files
P.3	Making save files can be tasking and is not necessary for the experience of my game, especially since I don't plan it to be long enough to require multiple sittings.

10	Save file management
P.3	Save file management would be to create the ability of deleting certain save files

11	Music
P.3	Making the music for the mood of the game, which is not particularly necessary, so I would only make it if I have time

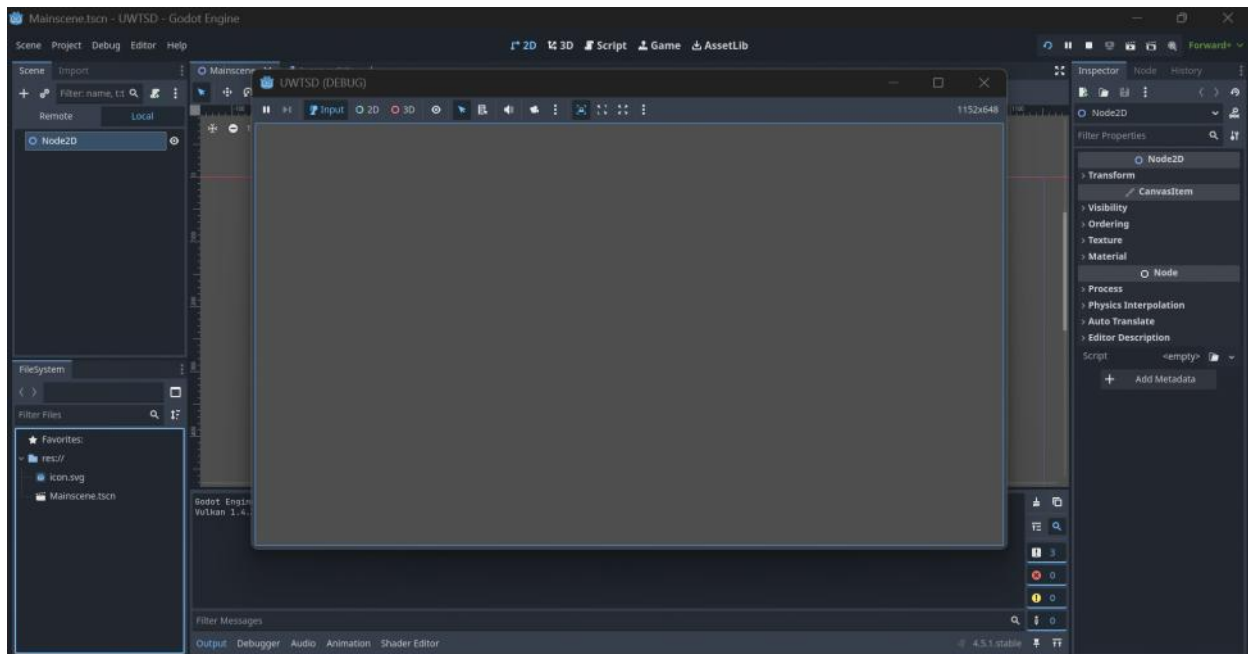
Character Design:



This would be the design of the character the player will be controlling. The sketch is simple, since her design will be less detailed when she will become pixelated.

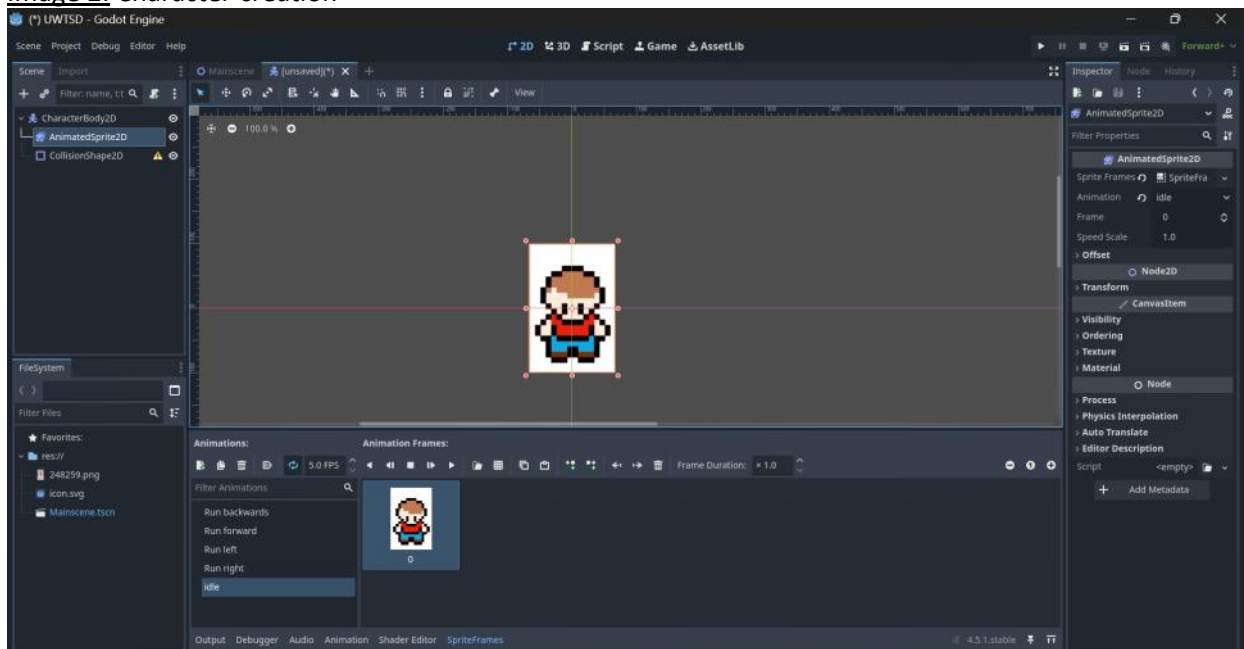
Q3:

Image 1: Creation of the game



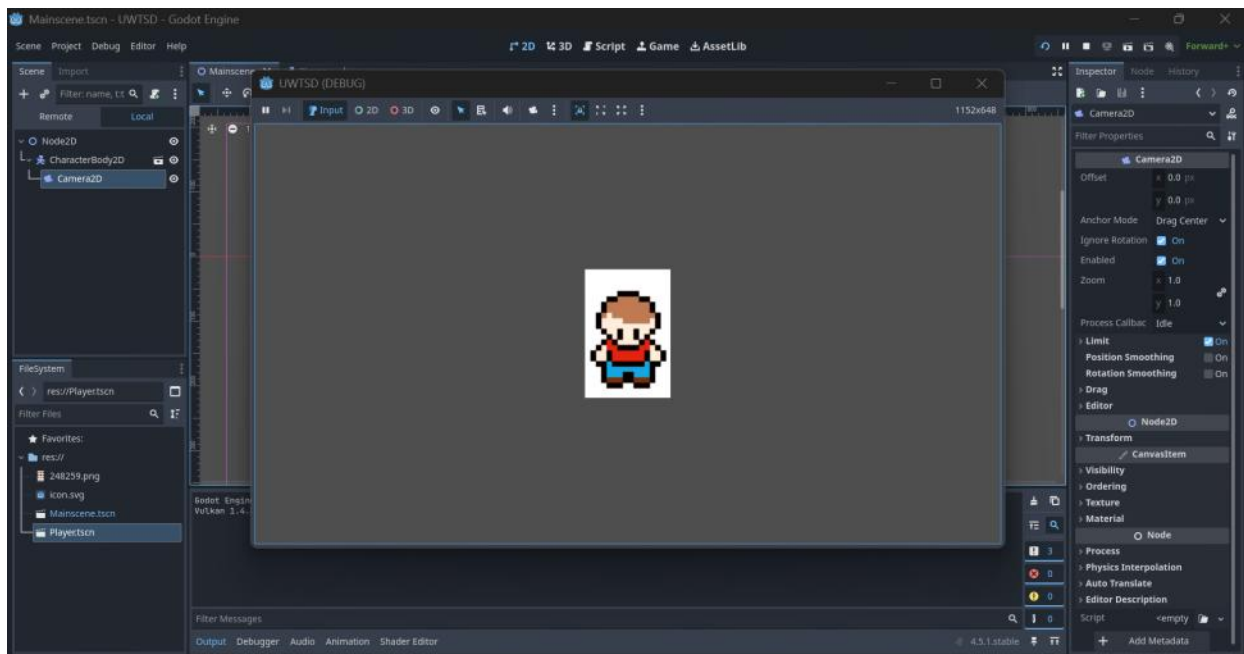
This screenshot simply shows the creation of the game (which I named UWTSD for now). The screen in the back is the programming of the game while the screen in the front is the game playing. As you can see, there is nothing at the moment.

Image 2: Character creation



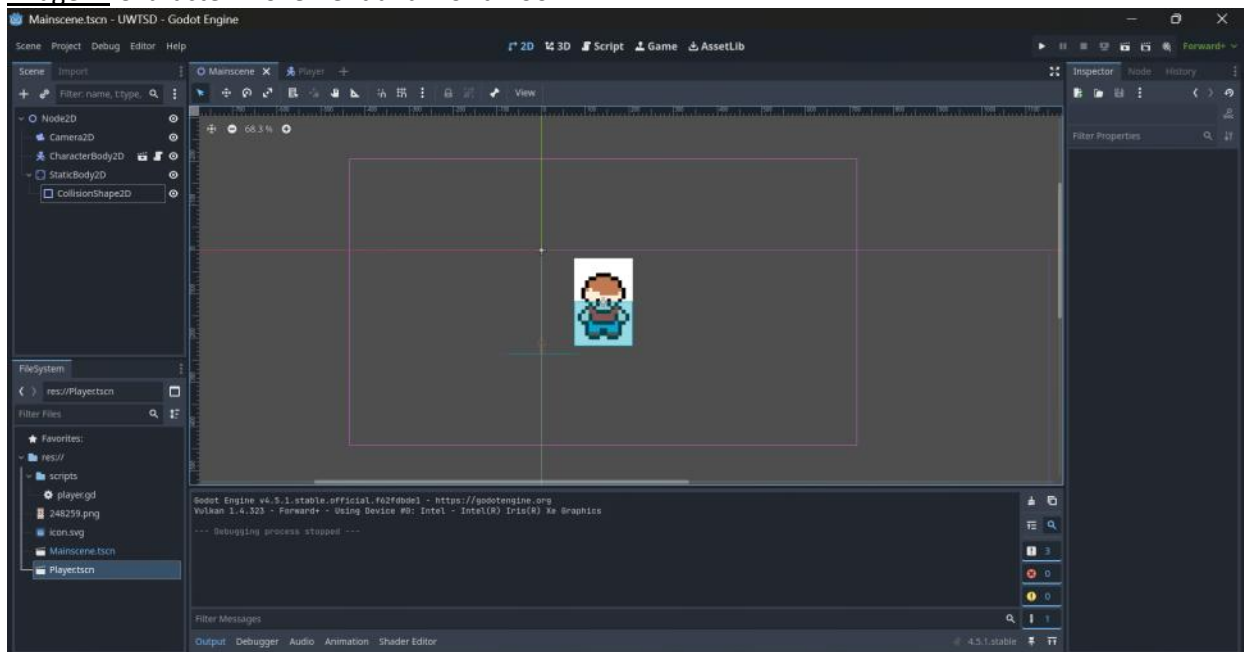
Here I have created my character. The current sprites are placeholders I found online until I create the sprites myself. The character has 5 animations, idle (shown in the video as a singular animation) and running in every direction.

Image 3: Camera creation



I added a camera to my game, which means that my character now appears when I run the game.

Image 4: Character movement and world floor



My character now has a script that defines its movements. The script was pre-written by Godot, automatically giving my character gravity and movement. When I start the game, my character immediately falls out of the camera view (the purple rectangle on the screenshot), so I added the StaticBody2D, which works as a floor. Now my character does not fall out of the camera, and instead walks around on the screen.

References

Wednesday, February 18, 2026

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Task 1:

[1] "The 71 Most AMAZING Innovations of All Time,"

[www.youtube.com.https://www.youtube.com/watch?v=I16TJUp4SVA](https://www.youtube.com/watch?v=I16TJUp4SVA)

[2] Kwete Mwana Nyandongo and Shenise Sasha Pillay, "The use of Fourth Industrial Revolution Technologies to Improve the Information Technology Auditor's Job Function," IEEE Xplore, Jun. 2022.

<https://ieeexplore.ieee.org/document/10033272/authors#authors>

[3] K. Robinson, "Do Schools Kill creativity?," YouTube. Jan. 06, 2006. Available:

<https://www.youtube.com/watch?v=iG9CE55wbY>

[4] T. Kelley and D. Kelley, *Creative Confidence: Unleashing the Creative Potential Within Us All*. London: W. Collins, 2013.

Task 2:

[5] A. Brazie, "Best Game Engines for Beginner Game Developers in 2024," gamedesignskills, Dec. 20, 2022. <https://gamedesignskills.com/game-development/video-game-engines/>

[6] "Resprite," Fengeon.com, 2025. <https://resprite.fengeon.com/>

[7] F. L. Studio, "The DAW Every Music Producer Loves," FL Studio. <https://www.image-line.com/>

Task 3:

[8] GeeksforGeeks, "Kanban Agile Methodology," GeeksforGeeks, Mar. 24, 2022.

<https://www.geeksforgeeks.org/software-engineering/kanban-agile-methodology/>

[9] Trello, "Trello," Trello, 2025. <https://trello.com>