Objective:

Design and create a small and simple game based on your own idea using the unreal engine. This project is to showcase game mechanics as a prototype.

Grade: Maximum Points 100
Due: Friday December 16th 2022 at 11:59PM.

Name The Project:
[FirtstNameInitial][LastNameInitial]NameOfGame For Example:
TGMegaMan

Deliverables:

1)   Project Specifications document, that outlines the requirements of the game. Refer to the Project Assignment 2 Requirements for Pong and Breakout and example resources posted on BrightSpace.

2)   UML Class diagrams.

3)   Object Interaction Diagrams, Optional: Sequence and Collaboration/Communication OR Pseudo code. (Optional)

4)   Unreal engine project containing all C++ code and game assets.

5)   A Packaged game executable.

The game must Contain the following technical requirements:

1)   Must Have Pickups.

2)   Must Have Player Pawn, and Player MUST be able to be Killed and Restart at last Checkpoint.

3)   Must have HUD.

4)   Must have Collision Detection (Hits AND Overlaps).

5)   Must Have Patrolling AI, The AI MUST do more than just patrol, and the AI Should not be a complete copy and paste from the class lessons, Do Something creative.

6)   Must Have Moving Platforms.

7)   Must have physics movement (Player control).

8)   Must have spawning.

9)   Must have a minimum of 2 custom components.

10)   Must have Check Points and end game/level scenario.

11)   Technical game feature of your choice 1.

12)   Technical game feature of your choice 2.

Technical Requirements 1 - 10 are worth 80% total. To achieve 100%, You must design and implement 2 additional technical requirements that are different from the first 10 listed above. Examples of two additional technical feature can be Animated Sprites, Particle Systems and Sound, AI with Perception etc.

Project should be version controlled using Github but not mandatory.