

Seneca

GAM537 – Game Development Fundamentals

**Professor: George
Kougioumtzoglou**

Assignment 2 of 3

Total Weight: 15%

Notes for the Student: This Assignment is the second of three that are designed to give you practical experience in building Games using the Unreal 4 Game Engine. This Assignment is a continuation of Assignment#1 and you should submit an improved version of the previous Assignment.

Background: You will need to have access to the latest edition of the Unreal Editor. You will also need a thorough understanding Game Genres, Level Design, Blueprints, Lighting, Landscape, Colliders and Game Characters.

Assignment Submission Requirements

- An electronic copy of your work (project and a written report), should be uploaded to the Blackboard by midnight on the deadline date.
- **This Assignment WILL NOT BE ACCEPTED VIA EMAIL.**
- The written report must be in pdf format and must contain the following: -
 - A cover page.
 - A table of contents.
 - Screenshots of your game, with relevant descriptions, detailing whether the functionality was met or not met, as specified below.

Assignment Regulations

- **This assignment can be done in groups of two or individually (continue with the same group from Assignment#1).**
- **Please review Seneca's policies on Academic Integrity, specifically:**

*"Each student should be aware of the College's policy regarding Cheating and Plagiarism. Seneca's Academic Policy will be strictly enforced. To support academic honesty at Seneca College, all work submitted by students may be reviewed for authenticity and originality, utilizing software tools and third-party services. Please visit the Academic Honesty site on <http://library.senecacollege.ca> for further information regarding cheating and plagiarism policies and procedures. **Thus, ensure that your code or any part of it is not duplicated by another student(s). This will result in a percentage of zero (0%) assigned to all parties involved.***



Technical Requirements

- All back-end functionality **MUST be done on Blueprints**.
- All the Level Design should be done in Unreal Editor.
- All the assets can be designed or imported from any source.

Detailed App Specification

You have been hired as a Game Developer and you are tasked to continue the development of a game with basic 2D or 3D graphics using only Blueprints. The project will be developed in rounds (iterations) and this assignment is part of the second round.

The game should be completed in 3 Assignments (Iterations). For this assignment you should focus only on the specified requirements.

Specifically, you are **ONLY** required to implement the following for this Assignment, continuing from Assignment#1:

Features

- Add at least a third level to the game with new look.
- Create a new Game Character, fully animated, with controls and camera.
- The animation should be realistic and the transitions logical and smooth.
- The Game Character should have a collider and should be fully interactive with the environment, other character and objects.
- The game should provide a working UI and a HUD (if applicable).
- Create at least 2 NPCs and 2 Enemies, fully animated, that move in the levels, but controlled by the computer (not AI needed).
- Create Landscapes for all the levels, with vegetation and/or object that populate the entire level.
- Improve the look and atmosphere of your levels adding Volume and Lights.

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Rubric

Criteria	Not Implemented 0	Partially Implemented 1	Fully Implemented 2
Level Design (15%) <ul style="list-style-type: none">• Interesting Outline.• Good-looking background.• Well-designed environment.	Not included	Included but not functionally or visually acceptable.	Included. Visually and functionally acceptable.
Game Character (35%) <ul style="list-style-type: none">• Well-designed.• Functional.• Fully animated.• Controls.• Colliders.• Camera.	Not included	Included but not functionally or visually acceptable.	Included. Visually and functionally acceptable.
NPC and Enemies (20%) <ul style="list-style-type: none">• Well-designed.• Functional.• Fully animated.• Movable.• Colliders.	Not included	Included but not functionally or visually acceptable.	Included. Visually and functionally acceptable.
Improved Landscape (10%) <ul style="list-style-type: none">• Vegetation.• Volume.• Lights.• Other objects.	Not included	Included but not functionally or visually acceptable.	Included. Visually and functionally acceptable.

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Overall look and feel (20%) <ul style="list-style-type: none">• Overall game level is polished• Used pleasing color palettes, materials, and imagery.• Color and layout.	Poor	Average	Exceeds
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Total : 100 MARKS

THE END