# Multimedia Systems - 2024 Assignment

## Game Creation Instructions (1 grade)

The assignment involves creating an endless runner 3D game similar to Subway Surfers. (<https://play.google.com/store/apps/details?id=com.kiloo.subwaysurf&hl=en&gl=US>).

The game should have at least 20 obstacles on the ground and in the air combined. The goal of the character is to dodge the obstacles using the up and down arrow keys while constantly moving forward at a fixed speed. When the character hits an obstacle, a screen should appear displaying "GAME OVER" along with a restart button and your game's logo.

Additionally, there should be some 3D models, different from the obstacles, which will function as rewards and should be collected by the user. For each object collected by the user, there should be a corresponding counter displayed on the interface.

When the user successfully completes the game by passing all obstacles, a text "CONGRATULATIONS" should appear on the screen accompanied by a restart button and your game's logo.

The character, while running, jumping, and ducking, should have corresponding animations and sound effects. When the "GAME OVER" or "CONGRATULATIONS" screens appear, both the music and animations should stop, along with the player's movement.

If the user presses the restart button, the game should start again from the beginning.

A screenshot of a video game

Description automatically generated

**In summary, you need to create the following assets:**

A 3D model to serve as a reward, created using Blender and imported into the game according to the instructions provided.

The main game music, created by combining music pieces found in the provided assets, following the instructions given.

Your game's logo, which will appear on the "GAME OVER" and "CONGRATULATIONS" screens, created according to the provided instructions.

**The game must include at least the following:**

* Character control using the up and down arrow keys
* Reward and obstacle prefabs and their placement
* Character animations for running, jumping, and death
* Game music
* Score indicating the total number of reward objects collected
* Functional restart button
* "Game Over" and "Congratulations" text

**You MUST use the assets uploaded on the course page and used in the Unity teaching sessions, as they contain 3D models, music, sound effects, and animations required for the assignment.**

## Blender 3D Object Creation Instructions (1 grade)

Model a simple everyday object (e.g., a cup, a glass, a coin, etc.) using Blender software. Apply a texture on its surface containing your AEM or your game's logo.

## Music Creation Instructions (1 grade)

The goal is to create an mp3 file, at least 1 minute long, by mixing:

* At least 2 melodies from those provided in the Unity Package
* Your recorded speech stating your name and AEM at the beginning
* At least 2 effects provided by Audacity

## Game Logo Creation Instructions (1 grade)

The goal is to create a png file by combining:

* A shape functioning as a background
* An image with a texture to fill your shape using the clipping mask technique
* Text containing your AEM and your game's name with at least 2 text effects.

**DELIVERABLES:**

The final file you submit should be a .zip file, following the guide provided (<https://www.instructables.com/How-to-BuildExport-Your-Game-in-Unity-to-Windows/>). he filename should be in the format: surname<AEM>.zip. For example, if your AEM is 1234 and your surname is Papadopoulos, then you should submit the file named Papadopoulos1234.zip.

If requested, you should also provide files from Blender, Audacity, and Photoshop.

**SUBMISSION DEADLINE**

The deadline for completing the stages is until the day of the exam at 23:59.

Good luck.

For any problems, please contact the following emails:

[karavidas@csd.auth.gr](mailto:karavidas@csd.auth.gr)

skraparl@csd.auth.gr

[tsiatsos@csd.auth.gr](mailto:tsiatsos@csd.auth.gr)