Blog post #4   # Milestone 2: Core Gameplay Phase

During the second milestone, we focused on developing the core gameplay and building the levels. Our original plan was to recreate parts of VIA University inside the game. To prepare, we went to VIA, took reference photos of the building, and even captured an image to use for the start screen. The idea was to incorporate visual elements from the actual campus into our tileset so the player could progress through different VIA-themed levels and eventually reach the auditorium as the final destination.

However, due to time constraints and the complexity of creating custom tiles, we changed direction and used a free pixel art tileset from Bdragon1727 to build our levels. This allowed us to keep progressing without getting stuck on asset creation.

For player movement, we followed a YouTube tutorial that helped us set up smooth platformer controls using Unity's Rigidbody2D. We implemented mechanics such as double jumping, wall sliding, and wall jumping. For example, wall sliding was handled like this in the script:

```
if (!isGrounded & WallCheck() & horizontalMovement != 0)
{
    isWallSliding = true;
    rb.linearVelocity = new Vector2(rb.linearVelocity.x, Mathf.Max(rb.linearVelocity.y, -wallSlideSpeed));
}
```

We also implemented a progress bar that shows how far the player is into the level, using another tutorial. It adds a nice layer of polish and a sense of progression.

Enemy behavior was another key focus. Using this tutorial, we added simple AI that patrols and damages the player on contact, adding challenge and interaction.

We also designed the game's logo using **Canva**, which gave us a fast and effective way to create a clean and recognizable title for our game.

Overall, this milestone gave us a functional core gameplay loop with movement, enemies, and level structure. It was a major step toward turning the project into a playable game.

Pixel tile set: https://bdragon1727.itch.io/pixel-tilemap-platformer

Player movement:
https://www.youtube.com/watch?v=xb3d7HarKcI&list=PLaaFfzxy_80EWnrTHyUk
kIy6mJrhwGYN0&index=2

Progress bar: https://www.youtube.com/watch?v=hj9ikydHttk

Enemy behavior: https://www.youtube.com/watch?v=roRYcRJqTwc

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