

The goal of the tutorial was to create a functional and fun VR game that could be replicated or added upon by future students. In order to have a successful project I needed to be able to efficiently use my time and effectively communicate with my co-projector. Direction on basic game creation within Unreal and project specifics were included in the form of a paper - [here](#). Unreal Documentation, discussion forums, Git, and various videos on YouTube provided useful were invaluable resources throughout the duration of the project. Over the course of the project I learned...

- How to use the class system within unreal to easily and randomly generate schools of fish
- How to enable and control automated movement for AICharacters
- Basic game settings
 - Creating game instance for global variables
 - Adjust level rendering settings to allow for visual effects
 - Adjust project input settings to allow for personalized in-game controls (i.e. pawn movement via controller)
 - How gravity and collision is handled to constrain pawn movement to terrain
- Landscapes
 - How to create and edit landscapes
 - How polygons are
- Creation of particle emitters for fog - didn't make in final design as created nausea
- Post-Process Effects (i.e. Scene Tinting, Bloom, Light Flare, etc.)
- Materials
 - Create dynamic 3d surface movement
 - Adjust tiling to reduce material stretching and easily adjust pattern density
 - Adjusting material domain to allow for cool in-game effects (i.e. Blue, Water Caustics, etc.)
- Audio
 - Create ambient sounds and adjust fade volume depending on location within world (i.e. slime bubbling, bat noise, underwater ocean)
 - Create sounds triggered by events or certain types of movement (i.e. shark swim)
- Mesh
 - Differences between skeletal and static meshes
 - How to create animations (i.e. shark swim, eel movement, etc.)

Things I accomplished:

- Levels Worked On: Cave, Nothingness, Ocean
 - Learned basics of level creation during the Nothingness level and later edited to accommodate gravity pawn (Nothingness was the collaborative level)
- Mechanics: Pawn movement via controller, Recursive level loading
- Majority of write-up
- Maybe better at communicating
- learned how to VR!