Case studie

I was given to assignment to make an interactive web visualisation of the iconic fountain in front of the campus kaai and apply an online and offline interaction with the visualisation. To do this I worked with the WebGl technologie to bring 3D objects in to a static website.

CONCEPT

My first concept was to make water run from the fountain and let the user handle the amount of water flow. But this concept was quickly shut down when I started looking for how I could implement this, creating a water flow is very hard to do and trying to create something decent would require more time then I had for the project. So it was back to the drawing board.

My second concept was to create an interactive platform game where users would climb the fountain and the goal was to reach the top. My idea was to use offline interaction to increase the difficulty of the game and have the user use keyboard inputs to climb the fountain.

FRAMEWORKS

To render the 3D objects with WebGl I looked into a few frameworks. Two of them looked like a great fit, tree.js and babylon.js. While tree.js is the most known and there are a lot of great examples build upon tree.js, it is more used as a for general web animations. While babylon.js was designed for web based game development with a fully fleshed out physics engine for collision detection, gravity,… And since my concept was using the fountain as the base of a platform game, I chose babylon.js.

To make my life a bit easier I also looked for javascript front end framework. I looked into the 3 mayor ones Vue.js, react and Angular2. I immediately ruled out angular because it is the most difficult of the 3 frameworks and I did not want learning angular to be the focus of this assignment. If I would have chosen tree.js as my WebGl frame I would definitely have gone with react as my front end framework because the I really liked the simple look of the react renderer react-three-fiber. But looking for a front end framework for babylon.js my preference went to Vue because of the really good documentation of the vue-babylonjs package.

GUI

INTERACTION