**Day 1**

**Think and Reflect**

 Node.js can be used in various ways, like creating utilities on machine and express web servers. Node.js is built against modern versions of v8.

**What is Node JS?**

 Node.js is an open-source, cross-platform JavaScript runtime environment that allows developers to execute JavaScript code outside of a web browser. Node.js enables developers to use JavaScript to write server-side code, which means it can be used to build web applications, command-line tools, and other types of software that traditionally required a different programming language, like Python or Ruby.

**“Hello World” in Node JS**

 Hello world in node.js is printed as a message on a web browser when calling the port number that is assigned the code.

**How to install NodeJS and NPM for Windows**

 To install NodeJS we do download the installer of node.js and run it to install, it automatically installs NPM.

**Running your first Hello world application in Node.js**

The first Hello world application in Node.js is run using the web browser. Created the file and navigated where it is stored.

**How much do you know?**

 I basically know what is node.js and run its first code which "Hello World", and some of its packages that are created initially.

**Day 1 Reflections**

 Node JS is an open-source environment that is initiated through the command prompt line interface on a computer. It is used because it is asynchronous and can send dynamic content.

**Day 2**

Node JS can be installed via a package manager. The package manager for windows is known as Chocolatey. By running some simple commands in the command prompt, the chocolatey package manager automatically downloads the necessary files and then installs them on the client's machine.

**Fun and Games with Node JS**

Building game with Node JS refreshes or further improve skills in JavaScript. Node JS is used as the backend app. ConnectedNES is an open-source hack that allows you to wirelessly stream data to the original 8bit NES game console.

**Configuring the game environment**

 Configuring a game environment in Node.js involves setting up the necessary tools and libraries to create a game using JavaScript on the server-side. Node.js is typically used for server-side development, and for client-side game development.

**Webpack**

Webpack provides a set of tools for managing the complex web of assets and code that make up a modern web-based game. It's particularly well-suited for web-based games or games with a web interface but can also be useful for managing assets and code for other types of games.

**Check how much you know**

 , you will create a .js file named webpack.config.js. The purpose of activity of webpack is to allow to use ES6 features and it will also allow to bundle your game. Webpack is expected to efficiently bundle together various modules and dependencies of a web application, optimizing them for deployment. The code that was written is understandable but will be clear along the journey.

**Day 2 Reflections**

 Webpack can be used in game development, particularly for web-based games or games that have a web interface.

**Day 3**

 Sprites are a fundamental concept in computer graphics and game development. They are essentially 2D images or animations that can be manipulated, positioned, and animated within a game or application.

**Sprites**

Sprites are flat, 2-dimensional images that can be composed of pixels. They are used to represent characters, objects, backgrounds, and other visual elements in a 2D space.

**Inside the client folder**

 Inside the client folder of a game development project, you would typically find the client-side code and assets that are responsible for running the game on the player's device.

**Code Snippet**

 This code is intended to handle the behaviour of an entity, possibly a player-controlled object, based on input from the user. Specifically, it seems to be controlling the speed of rotation of a sprite in the game.

**Day 3 Reflections**

 Sprites are often used for creating animations. By displaying a sequence of images in rapid succession, an illusion of movement can be created.

**Day 4**

**Assigning a Sprite to a player**

Assigning a sprite to a player in a game involves associating a graphical representation, sprite, with a specific object or character controlled by a player. This allows the player to interact with the game world using their visual representation.

**Managing the game server**

Managing a game server in Node.js involves setting up a server that can handle the networking and game logic for your multiplayer game.

**My Views on the Day**

Assignment of a sprite in game development is the important feature of the day and it is beneficial, they need more time to be understood and they are not easy.

**Day 4 Reflections**

To assign a sprite to a player in a game, a game development framework or engine like Phaser.js, Pixi.js, Unity, or similar are used.