Subject : Episode-03 | Let's write code Date : 17/08/2024

* [Download Node.js as package manager] →

While installing or downloading the Node.Js There some options are available like

Node version, on [windows, Mac or Linux] using (nvm, fnm, Brew, chocolatey, Docker)

NVM → It helps developers to manage multiple Node.Js versions on the same machine, allowing them to switch between versions as needed.

NVM is available for Mac and linux, but not windows.

To use NVM on windows, you can install "nvm-windows" and then use it to install Node.Js and npm.

NPM → It allows developers to install, share and manage dependencies in their projects. npm is a package manager for Node.Js that allows developers to download, install and manage packages when developing in Javascript.

fnm (Fast Node Manager) → It is a Node.Js version manager that allows you to install and switch between different Node.Js versions on the fly. FNM built in "Rust"

Subject : _____

Date : __/__/____

HOMEbrew → It is a free and open-source software package management system that simplifies the installation of software on Apple's operating system, ~~macos~~ "macOS", as well as "Linux"

Chocolatey → It is a free, open source package manager for windows that can install, upgrade and uninstall packages for Node.Js. It's similar to other package managers like "HOMEBrew" and "APT".

It can also manage things like runtime binaries, zip files, registry settings, and files and configurations.

Docker → It allows developers to package and run applications as containers. A container is an isolated process that runs on a shared operating system, offering a light-weight alternative to virtual Machines.

Subject : _____ Date : __/__/____

* Download Node.js as prebuilt installer →

It will run on three Processors.

(1) X64 (64bit) → For modern 64-bit Processors most common and better performance.

(2) X86 (32-bit) → For older 32-bit Processors. use only on older systems.

(3) ARM64 → For ARM-based Processors (e.g. smartphones, tablets, newer laptops). Power Efficien

* Node.js is a Javascript run time environment

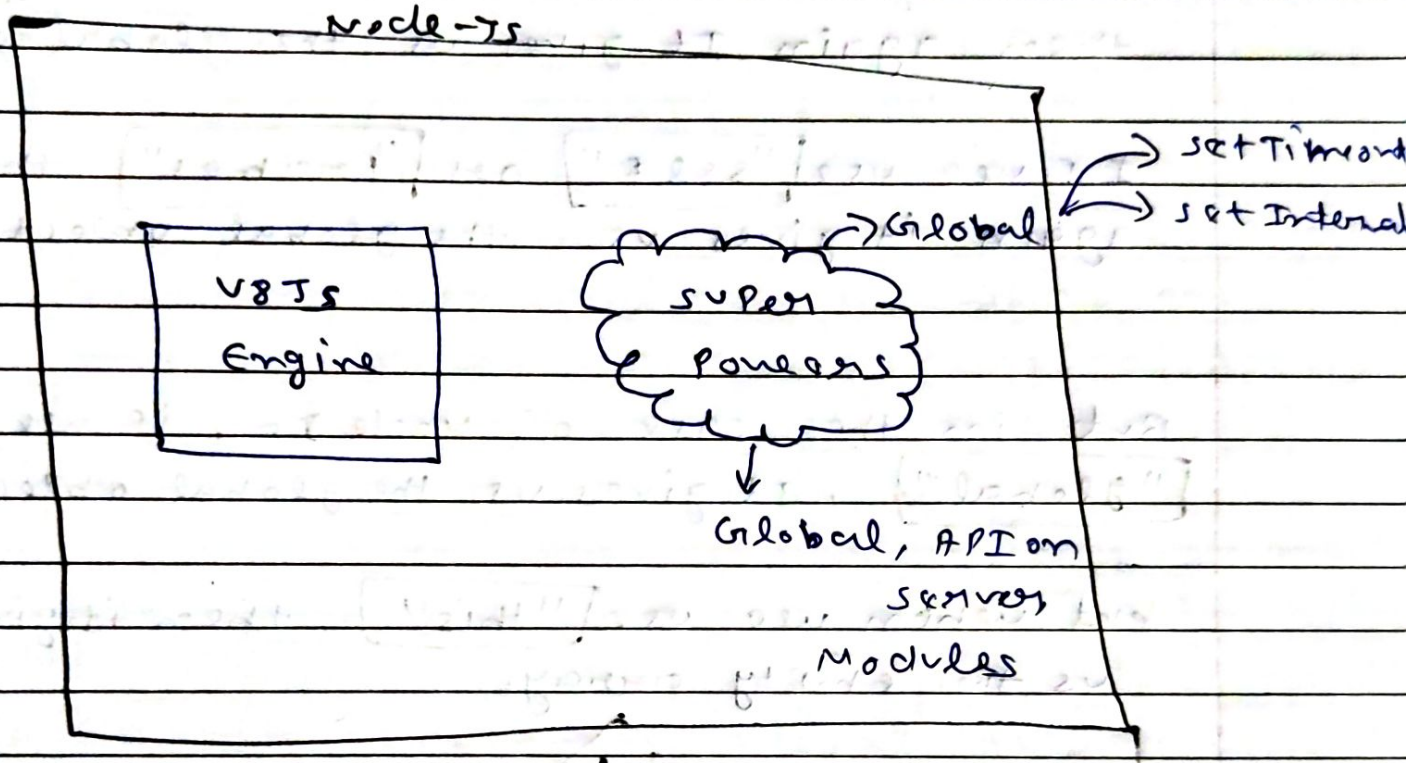
Node REPL → Read Evaluate Print loop

This is the fastest way of running ~~code~~ node JS code.

Note → REPL is not used in Production because It is very painful to write Javascript code directly

Subject : _____ Date : __/__/____

command to ~~Run~~ USR REPL = "node"



Global object is not a part of the V8 engine. The global object is one of the superpowers which gives us by ~~NodeJs~~ "NodeJs"

The global object gives us access to many cool features like "setTimeout", "setInterval etc."

Note:- Global object is global in NodeJs

Subject : _____

Date : __/__/____

Note :- In the case of the "browser" (console.log), if we write "window" then It gives us the global object, if we use "this" then again It gives us the global object.

If we use "self" or "frames" then again it gives us the global object.

But in the case of Node Js, if we use "global", It gives us the global object,

but when we use "this", then it gives us the empty array.

Difference

The behaviors of global and this in Node Js and Browser

Extra optional :- As above we discussed there are lots of ways to access global objects, which is not a good.

so the community decided to change the name so everyone can access with one name and it also solve the confusion problem.

Subject : _____ Date : __/__/____

But everyone suggested different names like some people said that use the global or some say use self, so it is really difficult to select a one name.

The community ~~tay to~~ decided to give the name "global" but global name is conflicating some places so the community decide ~~to~~ ~~not the~~ not to change the name, so that's the reason we can access the global object with different ways.

But later on, the community gave a ~~name~~ special name which is "globalThis"

We can access the global object. using "globalThis" everywhere [like Nodejs and Browser]

```
console.log(globalThis === global)
// output -> true
```