What is Node.JS?

Node.js is a java script runtime. Node.js is different version of javascript. It is built on JS.

Node.js also run on v8 browser engine of JS. V8 take js and convert it to the machine code.

Difference in between **Language and Runtime** environment?

Runtime environment: it runs on the OS

Why:

JS were running on the browser its context was browser then developer think to extend its scope and made Node.js and its context becomes OS so its scope extend. Bcz of Node.js we can make all type of development even ML with JS.

In old days JS was browser dependent now because of

It add some feature to JS like It allow JS to run on the different machines e.g. server. It add some feature in the JS engine V8. We run Node on the sever to write server side code.

**Usage of Node JS:**

1. We create a server and listen to incoming requests.
2. Handle request, validate input and manage database.
3. Response also handle by this.

**How to create a file and write data in the file by the use of Node**

First we need to import the function system of Node. Like let fs=require(‘fs’) and for writing inside the file we use the built-in function of fs like fs.writeFileSync(‘file-name’,’what you want to add in the file’).

**Modules of Node**

1. http : launch server and send request to other server like google api
2. https : launch a SSL server in which all the data is encrypted
3. os :
4. fs
5. path

**How to create a server with Node.JS**

Const http=require(“http”) // it contains a path inside braces. It will import module like global http

Const server=http.createServer((req,res)=>{

console.log(req); // it will return all the data about the server

})

Server.listen(3000);

**How to provide server response with Node.JS:**

In this I am making a webpage. We are just console the request.

*const* http = require("http");

*const* server = http.createServer((*req*, *res*) *=>* {

  console.log(*req*.headers);

  //   process.exit();

*res*.setHeader("Content-Type", "text/html");

*res*.write("<html>");

*res*.write("<head><title>Sever Node.js</title><head>");

*res*.write("<body> <h1>This is from the Node.JS</h1></body>");

*res*.write("</html>");

*res*.end();

});

server.listen(3000);

How to request for

**What is the Event Loop?**

The event loop is what allows Node.js to perform non-blocking I/O operations — despite the fact that JavaScript is single-threaded — by offloading operations to the system kernel whenever possible.