

NodeJS

Node.JS is an open source server-side runtime environment built on chrome's v8 javascript engine.

**** Nodejs Uses v8 javascript Execution engine ****

V8 from Google is the most used JavaScript engine.

SpiderMonkey is developed by Mozilla for use in Firefox.

JavaScriptCore is Apple's engine for its Safari browser.

Chakra is the JavaScript engine of the Internet Explorer browser.

Node.js can be used to build different types of applications such as command-line applications, web applications. real time chat applications, Rest API server etc.

Advantages

1. It uses javascript to build entire server side application
2. Asynchronous by default, so it performs faster
3. cross-platform framework that runs on windows, Mac or Linux

Datatypes

String, Number, Boolean, undefined, null, object, function

Process object

Each node.js script runs in a process. It includes process object to get all the information about the current process of Node.js Application.

process.execpath

process.pid

process.cwd

Modules

1. Core Modules - http, url, querystring, path
2. Local Modules - which we create on our own
3. Third-Party Modules - express, nodemon, body-parser, etc..

Module.exports

It is a special object which is included in every javascript file
in the node.js application by default

module - It is a variable that represents the current module

exports - It is an object that will be exported by a module

What ever we assign to module.exports will be exposed as a module

File System

Node.JS includes fs module to access physical files

fs module is responsible for all the Asynchronous or Synchronous file IO operations

Node.Js Event Emitter

NodeJS allows us to create and handle custom events easily by using events modules

event module includes EventEmitter class which can be used to handle custom events

ExpressJS

Express JS is a webframework for NodeJS

It makes web developement fast and easily

Advantages

1. Easy to configure
2. Allows us to define routes
3. Allows to create REst API server
4. Easy to connect to databases such as mongoDB, Redia, mySQL

Server Static Resources

It is easy to serve static files using built-in function whic is express.static

```
console.log(path.join(__dirname, 'public'))
```

```
app.use(express.static(path.join(__dirname, 'public')))
```

path

It is core module of NodeJS, which will help us to join the path