What is Node

- basically a difference version of javascript, a open source, back-end javascript runtime environment that runs on the V8 engine and executes JS code outside a web browser.

What is the difference between Node.js and JavaScript:

+ JavaScript

- JavaScript is a programming language that is used for writng scripts on the website.

- JavaScript can only be run in the browsers.

- Used on the client-size.

- Capable enough to add HTML and playwith the DOM

- can run in browser engine like JS core in safari and spidermonkey in firefox

- Javascript is used in frontend development

+ NodeJS

- a JS runtime environment

- can run JS outside the browser

- used on server-side

- does not have capability to add HTML tags

- V8 is the JS engine inside of node.js that parses and runs JS.

- Nodejs is used in server-side devlopment.

What is REPL

- Stand for Read, Eval, Print, Loop, a programming language environment that takes expression as user input and return the result back to the console after execution.

- Execute code as you write it.

What is the difference between fs.writeFileSync and fs.writeFile

first library: 'fs'

- fs.writeFileSync(file,data) is use for synchoronous operation

- fs.writeFile(file, data, options, callback) use for asynchoronous operation

  file: filename, data: data insert into the file, options: encoding, callback:function

- fs.readFile(file, options,function())

What is CommonJS

- a module (a bit of code encapsulated in a file and exported to another file) formatting system. it is a standard for structuring and organizing js code.

What is Event-Driven? Provide an example verifying Node is Event-Driven

- an architecture in which certain kinds of objects (called 'emitters') emit named events that cause function objects('listeners) to be called.

What is the difference between readFile and createReadStream

- ReadFile:

  + reads the file into the memory before making it available to the user

  + slower due to read of whole file.

  + it will not scale in case of too many requests as it will try to load them all at the same time.

  + due to its property, it is easier for nodejs to handle cleaning of memory in this case.

- createReadStream:

  + reads file in chucks according to a need by the user.

  + faster due to its property of bringing in chunks.

  + scalable as it pipes the content directly to the HTTP respone object

  + in this case memory cleaning by nodejs is not easy.

Does Node.js share a global scope? if not, how does variables shared between different files?

- node.js scripts don't share a global scope, variables are shared between different files by using export.

How to import our own files in Node.js

+ CREATE A MODULE

+ EXPORTING A MODULE

+ IMPORTING A MODULE

What is npm

- npm is a package manager for the JS programming language maintained by npm,,inc. Consisits of command line client, also called npm, and an online database of public and paid for-private packages, called the npm registry. The registry is accessed via the client, and the available packages can be browsed and searched via the npm website. The package manager and the registry are mangaged by npm.

Could you name some third party libraries you have used in Node.js

+ express, lodash, nodemon, axios

What is HTTP request and HTTP respone

+ Http request sent by the client to trigger an action on the server, and respone is the answer from the server.

Could you name some HTTP method

+ POST, GET, PUT,CATCH, AND DELETE

What is the difference between POST and PUT

+ PUT request are idempotent, if you send the same put request multiple times will always produce the same result. Calling POST request repeatly have side effects of creating the same resource multiple times.

Could you name some HTTP status code

+ 404: notfound, 200: successful responses, 300-399: redirection message, 400, 500: server error responses

What is http port

+ in a computer networking, http port is a communication endpoint, specific port numbers are reserved to identify specific services so that an arriving packet can be easily forwarded to a running application.

How to make a HTTP request with Node

+ simplest way to perform http request with Node is to use Axios library:

axios.get('url');

What is SERIALIZATION

- is a process of converting an object into stream of bytes so that it can be transferred over a network or stored in persistant storage.

What is Axios

- is a promise based http client for the browser and node.js, is isomorphic (can run in the browser and nodejs with the same codebase.

- intercept request and respone

- transform request and respone data

- cancel requests

- automatic transforms for json data

- client side support for protecting against XSRF