

Introduction To NodeJs

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Prerequisites

- HTML
- JavaScript

What is HTML

- Stands for HyperText Markup Language
- HyperText: Link between web pages.
- Markup Language: Text between tags which defines structure.
- It is a language to create web pages
- HTML defines how the web page looks and how to display content with the help of elements
- It forms or defines the structure of our Web Page
- Need to save your file with .html extension

Features Of HTML

- Learning curve is very easy (easy to modify)
- Creating effective presentations
- Adding Links wherein we can add references
- Can display documents on platforms like Mac , Windows, Linux etc
- Adding videos, graphics and audios making it more attractive.
- Case insensitive language

What is JavaScript

- It is a verb of the web page that defines all the actions to be performed on a webpage
- Its an object oriented programming language that uses JIT compiler
- It is everywhere and all web browsers are installed with it.
- JS application ranges from web development, mobile development etc
- JS is easy, simple and very compatible with HTML-CSS
- It is must to have skill for any software engineer role

What is Node JS

- Platform to run JavaScript on the server i.e outside the browser
- Node JS is not a framework
- Node JS is not a programming language
- Node Js can read, write, delete, etc files on the server
- Node Js can add, delete, modify data in database

Features of Node JS

- Scalable
- Uses JavaScript
- Easy to learn
- Fast
- Caching

Installing Node Js

- <https://nodejs.org/en/>
- Click and install
- To check
 1. Open command prompt
 2. `node -v`
 - Give the version of node js installed

Editors

- Visual Studio Code
- Sublime Text
- Atom
- CodeMix
- Brackets

Our First Program

- Open Sublime
 - Write : `console.log("Hello World");`
 - Save with .js extension
- Open cmd
 - Run command `node name_of_file.js`
- `console.log()`: display message on console.

REPL

- Stands for Read, Evaluate, Print and Loop
- Press node without file_name
 - R: read the input, parse in DS in JS, then store it
 - E: evaluates the DS
 - P: prints the result
 - L: Loops the above statements
- Simple expression
- Use variables
- `_` is used get previous result
- To exit `ctrl_c` twice

Global Objects

- `console.log()`
- `setTimeout(function () {
 Console.log("Prints after one sec");
}, 1000);`
- `setInterval(function () {
 Console.log("Prints after every one sec");
}, 1000); // ctrl+c`
- `__dirname`: name of directory in which our file is located
- `__filename` : includes file name as well

Function

- It is referred to a code snippet that generally perform some operation
- It helps in modularization of code
- Enables reusability of it as and when required
- Make implementation and debugging efficient and easy
- Function can be 2 ways in general to define functions
 - Using function keyword
 - Function expression

Using Function Keyword

- Using function keyword
- Starts with function keyword
- Example

```
function happy(){  
    console.log("I am grateful");  
}
```

- Calling:
 - happy();

Using Function Expression

- Starts with a var and assignment operator
- Example

```
var faith=function(){  
  console.log("hope");  
}
```

- Calling: faith()

Using Function Expression

- Starts with a var and assignment operator
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- Calling: faith()

Thank You