COMPLETE JAVASCRIPT COURSE

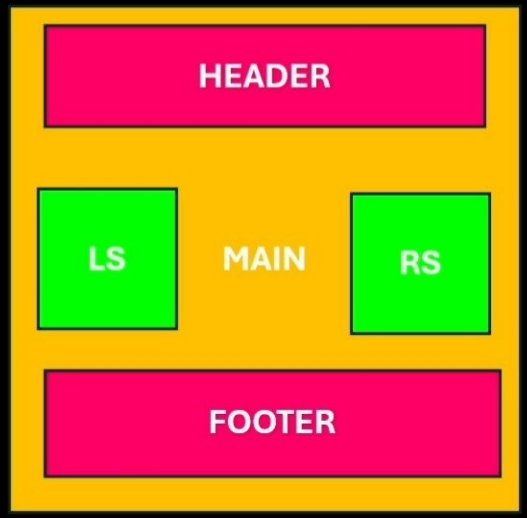
WHY THIS COURSE

- Easy & step by step explanation – Every topic & concepts
- Concepts → Detailed understand + Practical Projects
- Interview Questions + Logic Build → Proublems solved

WHY JAVASCRIPT

- Now → Javascript → Most popular + Powerful + Market Ready Language
- If → Javascript → Learn → You → Powerful web application
- Javascript → Popularity day by day → Incresing very fastly & rapidly
- **Note :** You → Learn Javascript → Frontend + Backend = Full stack developer

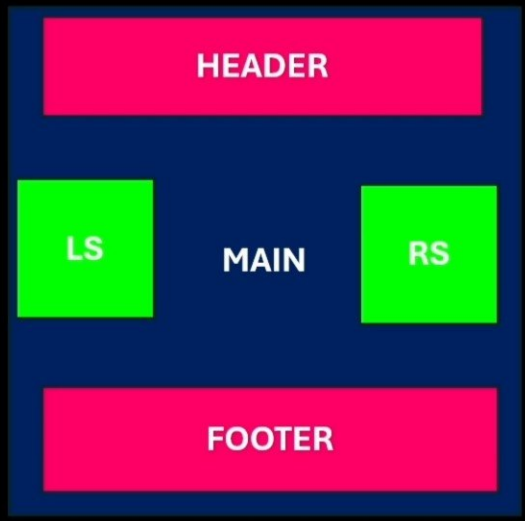
WHAT IS HTML, CSS, JS



- Any Website :
- Html – structure or skeleton
- Css – structure → beautiful → color, bgcolor etc.
- Js – logic / interactivity
- Ex. Calculator : +,-,*,/ → 12 + 12 = 24 → Maths task → JS
- HTML & CSS – Not a Programming Language
- Interactivity :
- Ex. Button click → Background Color → Change → Text Change

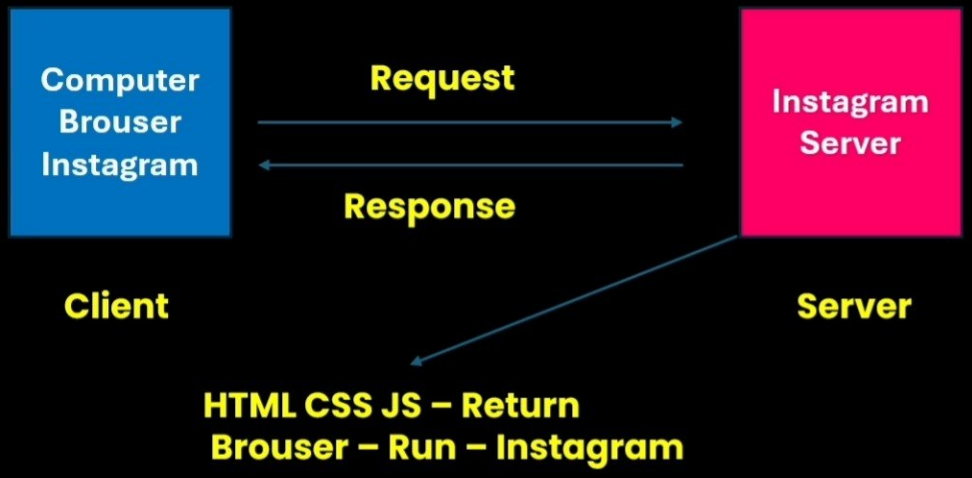
WHAT IS HTML, CSS, JS

- Interactivity :
- Ex. Youtube → Search Functionality → JS
- Ex. Click → Background Color → Website Change
- Note : JS → Website dynamic → Interactivity Add
- JS → Brain of Our Website → Logic



Client-Server Interaction & Brouser Role

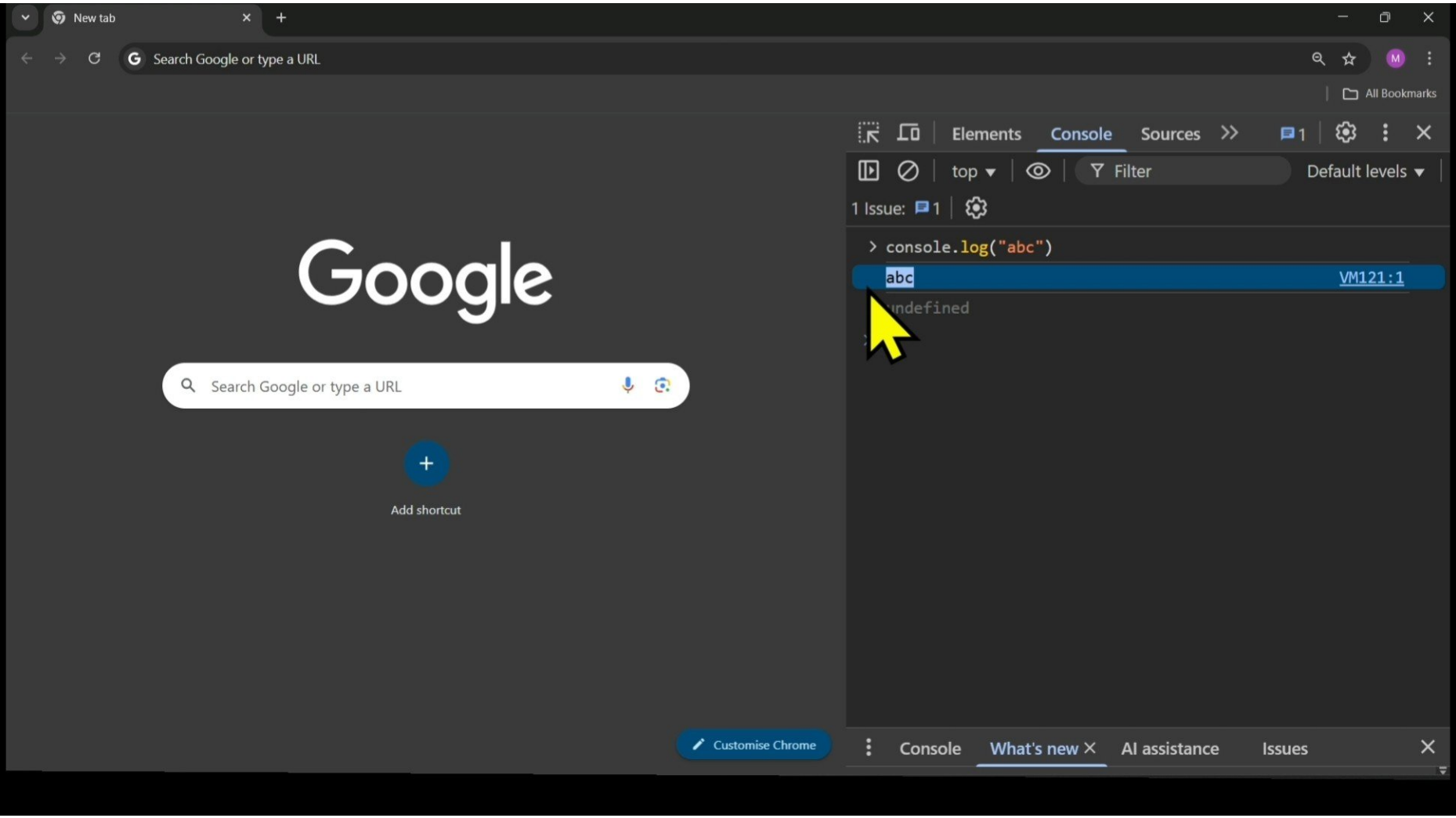
- Ex. Computer → Instagram → Visit



Note : Brouser understand
HTML, CSS & JS

BROUSER ROLE

- Javascript → Brouser understand → Very well
- Ex. Google chrome → Google → Right click → Inspect → Console tab
- Console tab → JS Syntax → Write
- Ex. Console.log(“abc”) → abc print

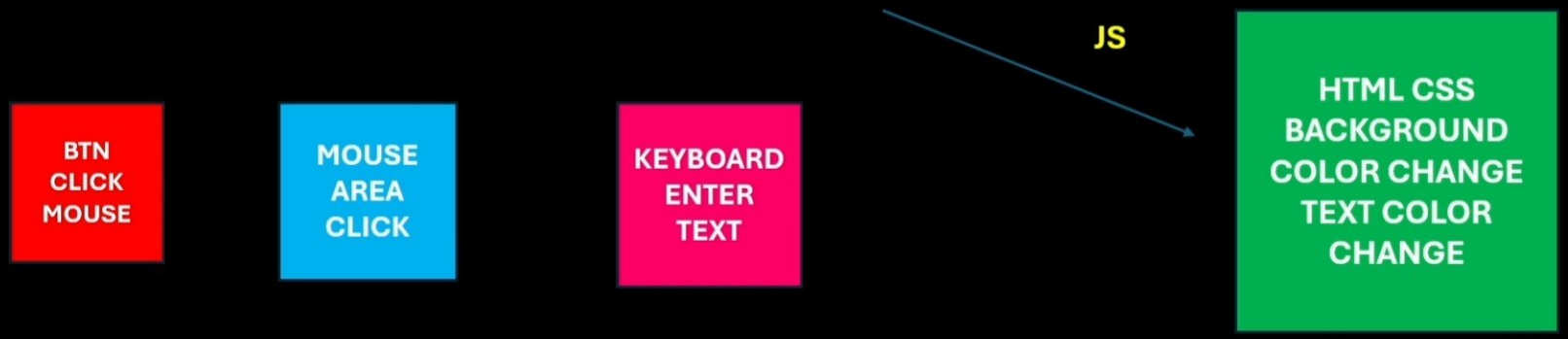

New tab
Search Google or type a URL
All Bookmarks
Elements
Console
Sources
1
top
Filter
Default levels
1 Issue: 1
> console.log("abc")
abc
VM121:1
undefined
Google
Search Google or type a URL
Add shortcut
Customise Chrome
Console
What's new
AI assistance
Issues

BROUSER ROLE

- Javascript → Brouser understand → Very well
- Ex. Google chrome → Google → Right click → Inspect → Console tab
- Console tab → JS Syntax → Write
- Ex. Console.log(“abc”) → abc print
- Note : Brouser → Not understand c++ code, But Understand JS code

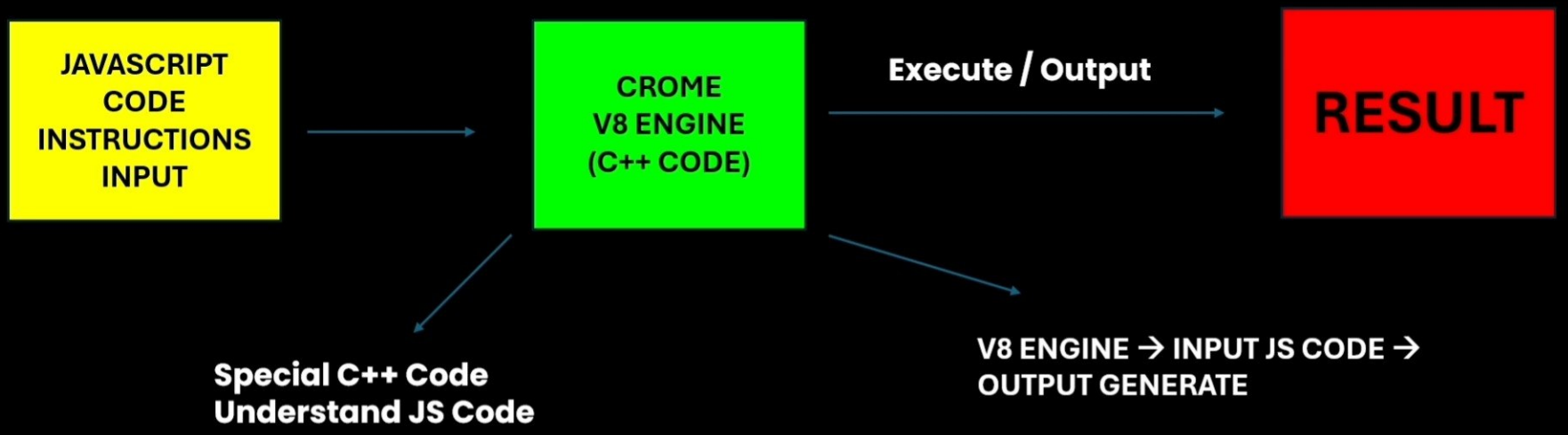
WHY JAVASCRIPT

- Javascript → Easy to learn language → Anybody can learn fastly
- Javascript → Language → My system / Computer → Not access directly
- Ex. You visit any website → They take the permission of your mic, location etc. → not access directly
- JS → direct access → HTML CSS Files (Manupulate) & Mouse / Keyboard Events Ex. Mouse click button, Keyboard key enter → JS Know → Where are click & Enter Text



HOW JAVASCRIPT RUNS : V8 ENGINE IN CHROME

- Ex. Google chrome → V8 Engine → Understand JS Code
- Ex. Mozila firefox → Spider Monkey → Understand JS Code



V8's CPP IMPLEMENTATION & COMPILATION TO MACHINE CODE

- Note : CPP Code → Compile → Machine code generate → Run → Output
- Note : Machine code(Binary 1,0) → Your system / OS / Brouser → understand
- Note : V8 Engine → CPP → Machine Code Present
- Note : Brouser → No need of Compiler → Because our system understand machine code
- Note : Brouser → Interpreter present → Line by line code → Execute
- Line 1 Read & Execute → Output
- Line 2 Read & Execute → Output
- Line 3 Read & Execute → Output
- Line 4 Read & Execute → Output
- Note : But now → Optimization Comes → JIT → Just in Time

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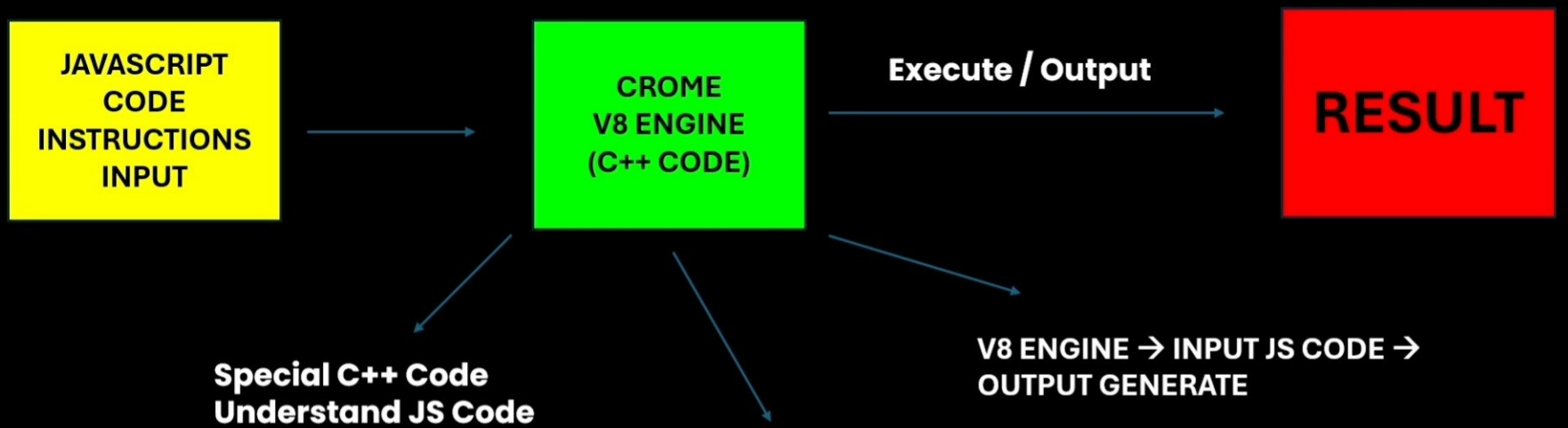


RUNNING JAVASCRIPT OUTSIDE THE BROWSER

- Chrome → Brouser → Right Click → Inspect → Console tab
- console.log("Line 1")
- console.log("Line 2")
- console.log("Line 3")
- Note : VS Code → Direct JS Code → Not Run → JS Code → Run → V8 Engine → Brouser Prsent

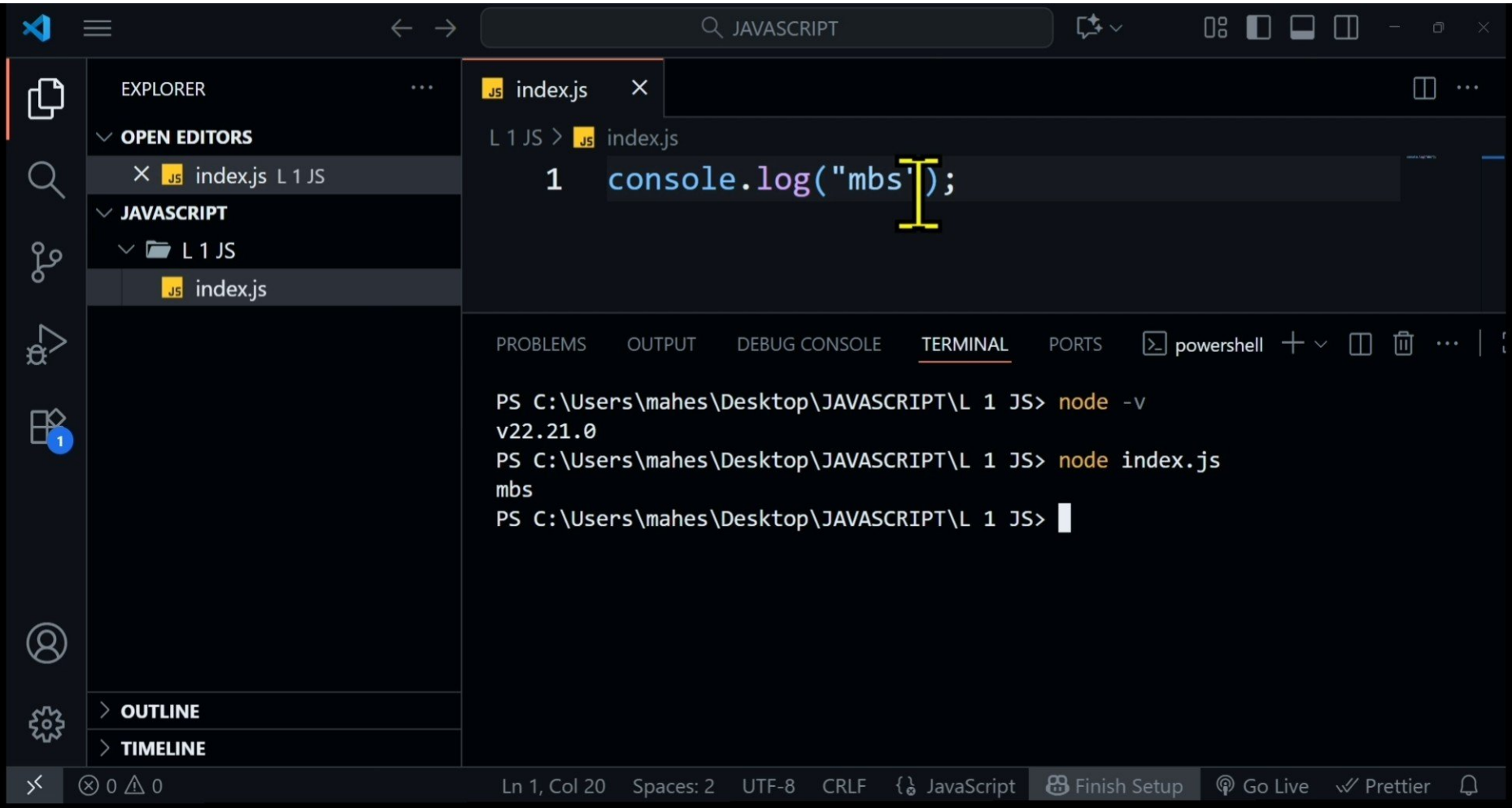
INSTALLING NODE JS

- Node JS → V8 Engine Code + Extra functionality
- Node JS → Javascript → Run time environment → Javascript code → System(VS Code) → Run
- Note : But behind the scene → V8 Engine(CPP Code) → Run Javascript code

V8 ENGINE CODE → BROUSER →
PICK THAT → SYSTEM → INSTALL

NODE JS DOWNLOAD & INSTALL

- Chrome → Node JS Download / Install → Search → Official website → get node JS → click → install(options – mac os, windows) → agree → done
- VS Code → New file – index.js → open in integrated terminal
- Command : node –v → Version of node JS
- Command : node index.js → Code Run
- Advantage : Now → Javascript Run → Inside & Outside
- Advantage : Backend → Javascript → Server(Is like computer) → Run


JAVASCRIPT
EXPLORER
OPEN EDITORS
index.js L 1 JS
JAVASCRIPT
L 1 JS
index.js
OUTLINE
TIMELINE
index.js
L 1 JS > index.js
1 console.log("mbs");
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
powershell
PS C:\Users\mahes\Desktop\JAVASCRIPT\L 1 JS> node -v
v22.21.0
PS C:\Users\mahes\Desktop\JAVASCRIPT\L 1 JS> node index.js
mbs
PS C:\Users\mahes\Desktop\JAVASCRIPT\L 1 JS>
0 0
Ln 1, Col 20
Spaces: 2
UTF-8
CRLF
JavaScript
Finish Setup
Go Live
Prettier