**Introduction Of Nodejs**

**🚀 History of Node.js**

**Node.js** is a powerful, open-source JavaScript runtime built on Chrome's V8 engine that allows developers to run JavaScript on the server side.

**📜 Timeline and Key Events**

**🟢 2009 – Birth of Node.js**

* **Creator:** *Ryan Dahl*, a software engineer.
* **Goal:** Solve the limitations of traditional web servers (like Apache) which handled concurrent requests inefficiently.
* **Key Innovation:** *Non-blocking, event-driven I/O* for better scalability.

**🧠 Idea:**  
Ryan noticed that web servers struggled to handle multiple connections efficiently due to blocking I/O. He created Node.js to handle **asynchronous operations** using **JavaScript**, a language previously used only in browsers

### 🔄 ****2015 – Node.js Foundation****

* Node.js faced fragmentation when a fork called **io.js** emerged.
* Later, both communities merged, and the **Node.js Foundation** was formed under **The Linux Foundation**.

## 🧠 What is REPL in Node.js?

**REPL** stands for:

* **R**ead – Reads the user’s input, parses it into a JavaScript data structure.
* **E**val – Evaluates the data structure (runs the JavaScript code).
* **P**rint – Prints the result of the evaluation to the console.
* **L**oop – Repeats the process until the user exits.

It’s an interactive shell that allows you to:

* Run JavaScript code on the fly
* Test functions, variables, and small programs
* Debug logic quickly

🧪 Common Operations in REPL

### ****Basic JavaScript Expressions****

> 2 + 2

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> "Hello " + "World"

'Hello World'

**Variable Declarations**

> let name = "tarunsai"

undefined

> name

'tarunsai'

**Function Declaration and Use**

> function add(a, b) { return a + b }

undefined

> add(5, 3)

8

**Using Built-in Modules**

**> const os = require('os')**

**> os.platform()**

**'win32'**