

NodeJS

What is NodeJS?

Node.js is an open source, cross-platform runtime environment for developing server-side and networking applications. Node.js applications are written in JavaScript, and can be run within the Node.js runtime on OS X, Microsoft Windows, and Linux.

Node.js also provides a rich library of various JavaScript modules which simplifies the development of web applications using Node.js to a great extent.

Node.js = Runtime Environment + JavaScript Library

Features of NodeJS?

- Asynchronous and Event Driven
- Very Fast - Being built on Google Chrome's V8 JavaScript Engine, Node.js library is very fast in code execution
- Single Threaded but Highly Scalable
- No Buffering - Node.js applications never buffer any data. These applications simply output the data in chunks.
- License – Node.js is released under the MIT license.

Where to Use NodeJS?

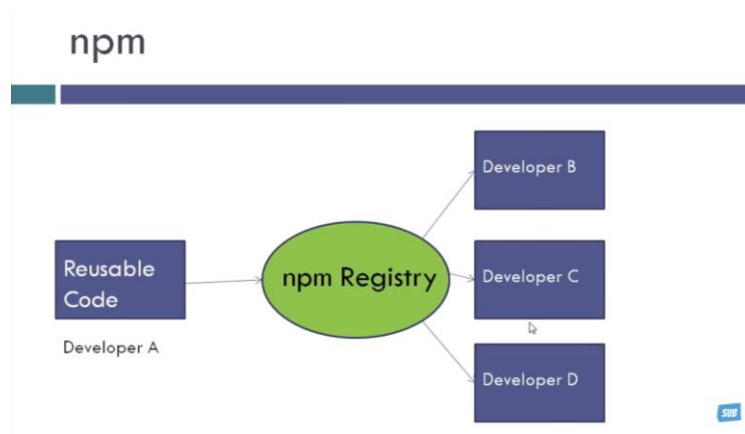
Following are the areas where Node.js is proving itself as a perfect technology partner.

- I/O bound Applications
- Data Streaming Applications
- Data Intensive Real-time Applications (DIRT)
- JSON APIs based Applications
- Single Page Applications

Where Not to Use NodeJS?

It is not advisable to use Node.js for CPU intensive applications.

Introduction to NPM



npm is the world's largest Software Registry. The registry contains over 800,000 code packages. Open-source developers use npm to share software. Many organizations also use npm to manage private development.

npm is free to use

we can download all npm public software packages without any registration or login.

npm includes a CLI (Command Line Client) that can be used to download and install software:

`npm install <package>`

npm is install with nodejs

all npm packages are defined in files called package.json

the content of package.json must be written in JSON like

```
1 {
2   "name": "nodejs",
3   "version": "1.0.0",
4   "description": "",
5   "main": "index.js",
6   "scripts": {
7     "test": "echo \"Error: no test specified\" && exit 1"
8   },
9   "author": "",
10  "license": "ISC"
11 }
```

