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## NODE JS

Wednesday, March 16, 2022 2:34 PM

• NodeJS is a runtime environment for running JavaScript code outside web browser.

\$ node app.js

## What can we do with NodeJS?

- 1. We can write a "hello world" application.
- 2. We can write small scripts to automate our task
  - Push files to git?
  - Delete unwanted files from the disk
  - Do some recurring works involving your file system
  - Manage your project's backup and deployment to the server
- 3. Write test cases for our JavaScript logic
- 4. Create Network applications like
  - a. HTTP Server/client
  - b. Web Server/client
  - c. Logic to fetch data from the server
  - d. Logic to automatically generate html files
- 5. Any application not involving browser directly
  - a. We can create applications that can run in browser.

## **Server Side Application**

- We can use NodeJS to create application that can
  - o Listen for incoming HTTP Request
  - o Fetch data from data base based on
  - o Create HTML pages
  - O Send the page to the client as response

## Another Major Reason to use NodeJS is NPM (Node Package Manager)

- · Why do you use smart phone?
  - o To Make phone call?
    - Even non-smart phone can do it.
  - Web browsing.
- Which is the most important app in your phone?
  - o Playstore.
    - This is the main reason for having a smart phone!
    - This is what makes your phone smart and extensible
      - · You get everything else from here!

# NPM is the 'playstore' of NodeJS ecosystem

- . NPM is a like a huge market place for components needed for web application development
- It includes libraries like
  - o JavaScript libraries
    - Browser Libraries
      - React
      - Angular
      - Vue
      - Jquery
    - Server Side libraries
      - Express
      - Mongo
    - · Testing library
      - Jest
      - Karma
  - o Executable libraries • Project Buiding tools like
    - Webpack
    - Gulp
    - Grunt
    - Transpilers like
      - Typescript
    - Babel Runtimes like
      - Liveserver
      - Nodemon
    - Testing Frameworks

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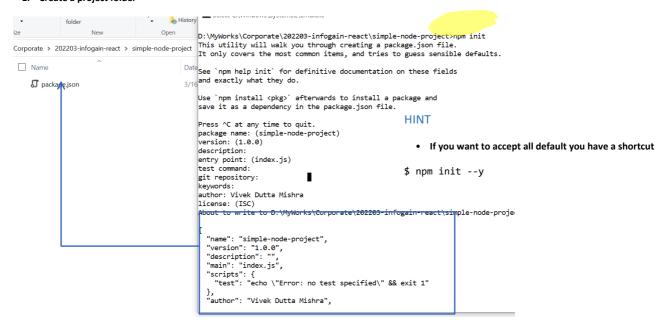
- Jasmine
- lest
- o Non Javascript libraries
  - CSS
    - Bootstrap
    - Font-awesom
- o ... (More than 6,50,000 components existed in 2018)
- For more details visit https://npmjs.org

## NPM Also provides a simple project management structure

- · All projects we create today with node ecosystem, we create as an npm project
  - o Including
    - Frontend projects like
      - React
      - Angular
    - Mobile development projects like
      - Flutter
      - ReactNative
- A Node project is simply a folder with a special package.json and node\_modules folder

#### **NPM Project**

1. Create a project folder



## **IMPORTANT!**

50% + People use NodeJS, not because they want to write non-browser based application, but because they want to use NPM which is a part NodeJS