Practical-1

AIM: Introduction and Installation of Node.js

1. Differentiate JavaScript and Node.js.

Ans :

JavaScript	NodeJS
It is an open-source and light weight scripting language which is used to make dynamic web applications	It is an open-source, cross- platform runtime environment that allows JavaScript to use outside the web browsers
It is a programming language	It is a runtime environment
JavaScript is only run web browsers	One can run JavaScript outside the web browsers using NodeJS
It is used in client side	It allows JavaScript to use on server side
JavaScript is used to make dynamic web pages	Using NodeJS we can built real-time applications

2. What is the difference between ‘front-end’ and ‘back-end’ development?

Ans :

Specifications	Front-end Developers	Back-end Developers
Definition	They are concerned with what the user sees.	They construct the infrastructure that will allow the front-end to function.
Skillsets	HTML, CSS, and JavaScript are the languages that a frontend developer should be proficient with.	Java, Golang, Python, Dot Net, etc. are back-end programming languages. Knowledge of databases, servers, APIs should be known by backend dev’s.
Stand-alone Service	The service of front-end development cannot be provided on its own.	Back-end development can be provided as a stand-alone service in the form of API Service.

Goals	All users/devices should be able to view the website.It should remain responsive on mobile as well as desktop.	They must ensure that the website loads and performs correctly.
Most popular tools	HTML, CSS, JS	Databases, Any Backend language, Networking Knowledge.
Frameworks	React, Angular	Django (Python Devs), Spring (Java Devs)

3. What is Node.js?

Ans : Node.js is an open source, cross-platform runtime environment and library that is used for running web applications outside the client's browser.

It is used for "server-side programming", and primarily deployed for non-blocking, event-driven servers, such as traditional web sites and back-end API services, but was originally designed with real-time, push-based architectures in mind. Every browser has its own version of a JS engine, and node.js is built on Google Chrome's V8 JavaScript engine.

4. Write down advantages of Node.js.

Ans : Easy to Learn and Quick to Adapt

Helps in building Cross-functional Teams

Improves App Response Time and Boosts Performance

Reduces Time-to-Market of your applications

Extensibility to Meet Customized Requirements

Helps in Building Cross-Platform Applications

5. How Does Node Js differ with other languages ?

Ans : Node. js does not experiment with multiple coding languages but uses the JavaScript coding language across the board. All developers that have previously worked with JavaScript will be able to easily make the transition towards Node. js as it is based entirely on JavaScript.

Node.js is popular because it has a huge, active, open-source, JavaScript-based ecosystem. Also, it doesn't tend to break compatibility between versions in major ways.

6. Who use Node Js ?

Ans :LinkedIn. LinkedIn is the social network for professional connections. ...

Netflix. Netflix is a streaming service for television and film serving millions of users worldwide and likely one of the most familiar to you of the companies using Node. ...

Uber

Trello

PayPal

NASA

eBay

7. Which are the applications of Node.js?

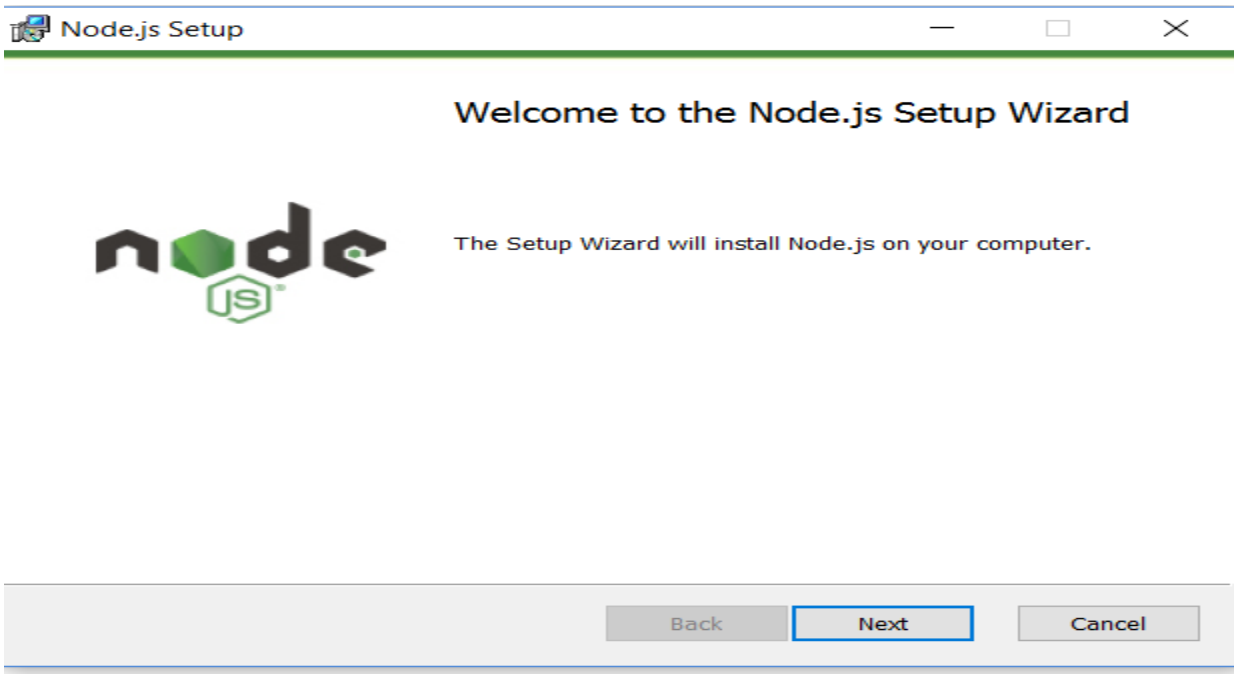
Ans :Job Portal
Online Movies
Online car booking
Online payment
Searching
Online shopping
Online Banking

8. How to download & install Node.js

Ans : **Step 1: Download the Installer**

Download the Windows Installer from NodeJs official website. Make sure you have downloaded the latest version of NodeJs. It includes the NPM package manager.

Step 2: Install Node.js and NPM

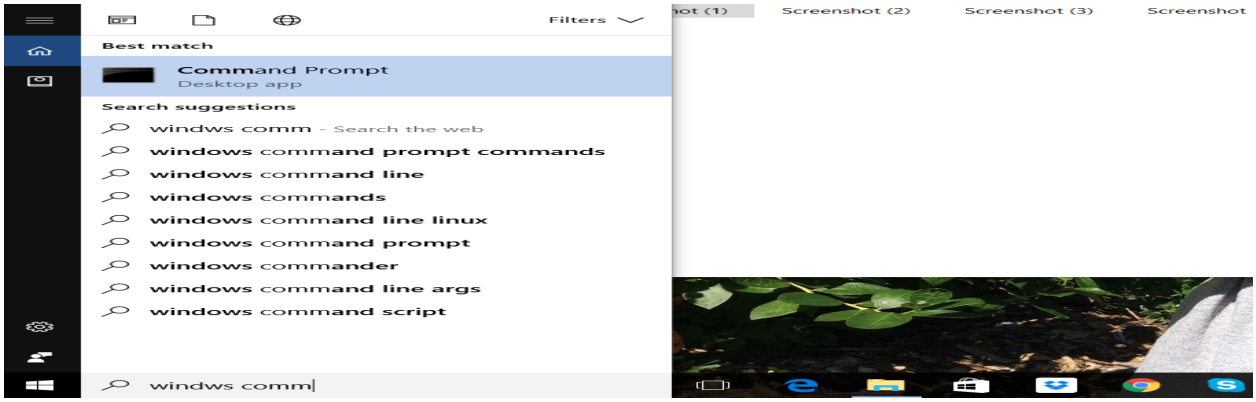


After choosing the path, double-click to install .msi binary files to initiate the installation process. Then give access to run the application.

You will get a welcome message on your screen and click the “Next” button. The installation process will start.

Step 3: Check Node.js and NPM Version

If you have a doubt whether you have installed everything correctly or not, let’s verify it with “Command Prompt”.



Command Prompt window will appear on the screen.
To confirm Node installation, type *node -v* command.
To confirm NPM installation, type *npm -v* command.
And you don't need to worry if you see different numbers than mine as Node and NPM are updated frequently.

9. How to check installed version of node.js?
Ans :So just type node -v and you will get the version of Node. js you are using.

10.How to write and execute Node.js program to print "Hello World" in console?
Ans :
Program :
console.log("Hello World");
Execute Code :

```
$ node hello.js
```

```
Output
Hello World
```