Web Application Development

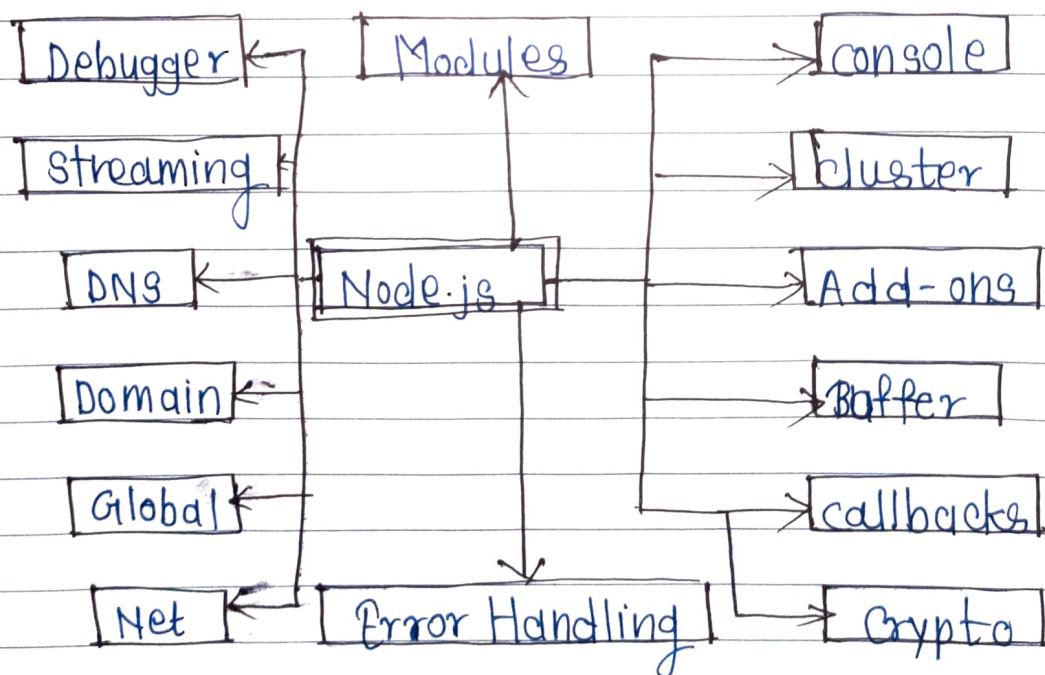## Assignment No. 3 (a)

Aim :-

Create a Node. JS application which serves a static website.

Theory :-

Node. JS is an open source feat environment Node. JS is a server-side platform built on Google Chrome's Javascript Engine (V8 engine). Node.js uses an event-driven, non-blocking I/o model that makes it lightweight and efficient, perfect for data-intensive real time applications that run across distributed devices.

```
Debugger ← Modules → console

Streaming ← → cluster

DNS ← Node.js → Add-ons

Domain ← → Buffer

Global ← → callbacks

Net ← Error Handling → Crypto
```

Node.js is an open source cross platform runtime environment for developing server-side and networking applications.

features of Node.js ⇒

Node.js = Runtime Environment + JavaScript Library

i) Asynchronous and Event Driven ⇒
All APIs of Node.js library are asynchronous, that is, non-blocking. It essentially means a Node.js based server never waits for an API to return data.

ii) very fast ⇒
Being built on Google's chrome's V8 javascript Engine, Node.js library is very fast in code execution.

iii) No Buffering ⇒
Node.js applications never buffer any data. These applications simply output the data in chunks.

iv) License ⇒
Node.js is released under the MIT license.

v) Single Thread but Highly scalable.

Advantages of Node.js ⇒

i) High performance for Real time applications

ii) Easy scalability for modern applications.

iii) cost - effective with fullstack Js.

iv) community support to simplify development

v) easy to learn and quick to adapt.

vi) Helps in building cross- functional platform

vii) improves App Response Time & Boosts performance.

viii) Reduces loading Time by quick caching.

ix) Reduces time-to -Market of your applications

Disadvantages of Node.js ⇒

i) Reduces performance when handling Heavy computing task.

ii) Node.js invites a lot of code changes due to unstable API.

iii) Node.js Asynchronous programming model makes it difficult to maintain code.

iv) High demand with a few experienced Node.js developers.

v) Choose wisely - lack of library support can Endanger your code.

Conclusion ⇒

Thus in this we created Node.js application which serves a static website.