**1.What is npm?**

npm is two things: first and foremost, it is an online repository for the publishing of open-source Node.js projects; second, it is a command-line utility for interacting with said repository that aids in package installation, version management, and dependency management.

**2. What is Node.js? Where can you use it?**

Node.js is an open-source, cross-platform JavaScript runtime environment and library to run web applications outside the client’s browser.

It is used to create server-side web applications.

Node.js is perfect for data-intensive applications as it uses an asynchronous, event-driven model.

You can use I/O intensive web applications like video streaming sites. You can also use it for developing: Real-time web applications,

Network applications, General-purpose applications, and Distributed systems.

**3. Why use Node.js?**

Node.js makes building scalable network programs easy. Some of its advantages include:

It is generally fast

It rarely blocks

It offers a unified programming language and data type

Everything is asynchronous

It yields great concurrency

**4. How does Node.js work?**

A web server using Node.js typically has a workflow that is quite similar to the diagram illustrated below.

Diagram

Description automatically generated

* Clients send requests to the webserver to interact with the web application. Requests can be non-blocking or blocking:
* Querying for data
* Deleting data
* Updating the data
* Node.js retrieves the incoming requests and adds those to the Event Queue
* The requests are then passed one-by-one through the Event Loop. It checks if the requests are simple enough not to require any external resources
* The Event Loop processes simple requests (non-blocking operations), such as I/O Polling, and returns the responses to the corresponding clients

A single thread from the Thread Pool is assigned to a single complex request. This thread is responsible for completing a particular blocking request by accessing external resources, such as computation, database, file system, etc.

Once the task is carried out completely, the response is sent to the Event Loop that sends that response back to the client.