Web Servers 101

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AGENDA

What is Node.js

What is a web server

Creating a web server with vanilla Node.js

Create a web server with Express.js

Why was the JavaScript developer sad?

Because he didn't Node how to Express himself

What is Node.js

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What is Node.js? Select all that are true.

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What is a web server?

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What is a web server? Select all that are true.

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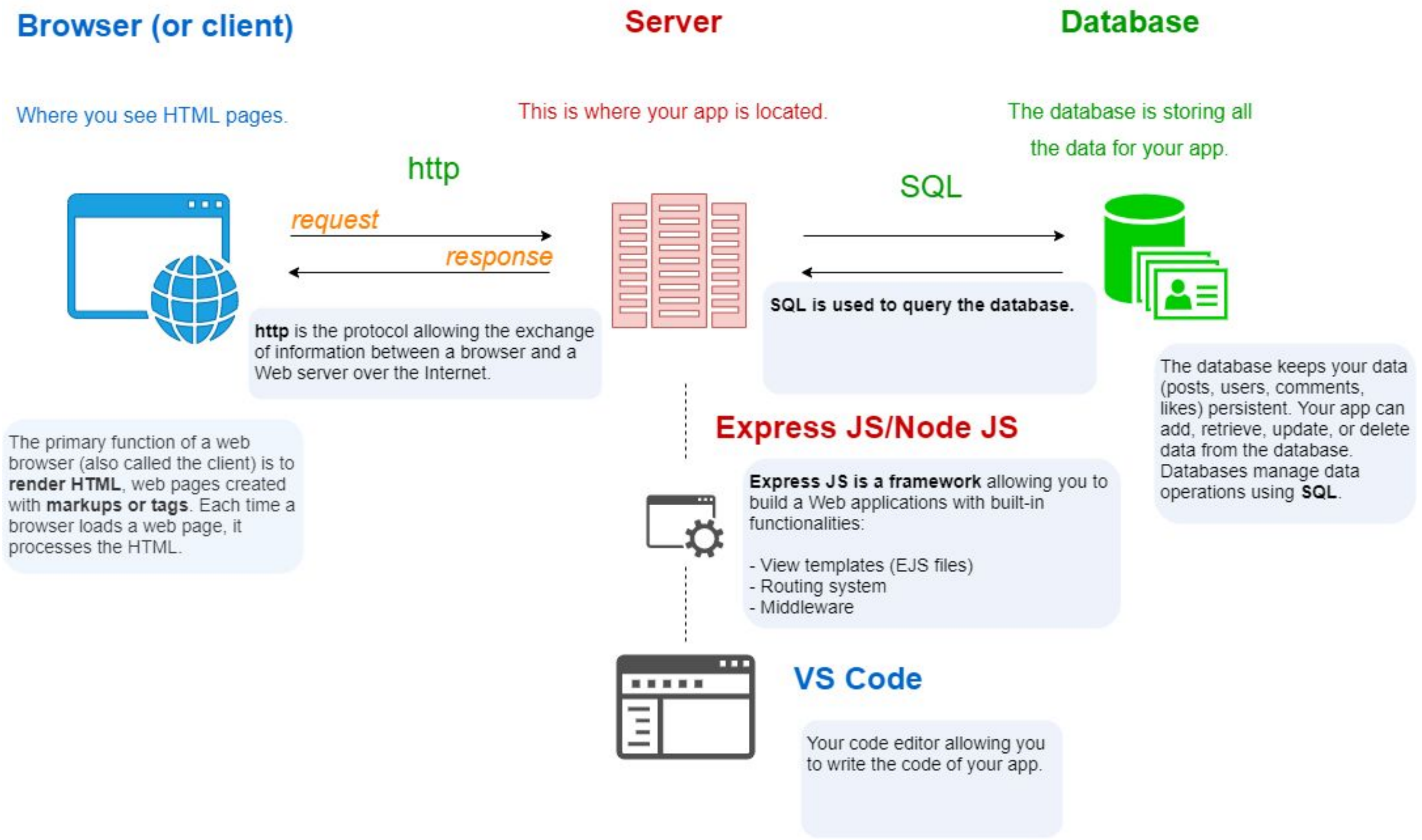
Web 3-Tier Architecture



Browser (or client)

Where you see HTML pages.

The primary function of a web browser (also called the client) is to **render HTML**, web pages created with **markups or tags**. Each time a browser loads a web page, it processes the HTML.

http is the protocol allowing the exchange of information between a browser and a Web server over the Internet.

Server

This is where your app is located.

SQL is used to query the database.

Database

The database is storing all the data for your app.

The database keeps your data (posts, users, comments, likes) persistent. Your app can add, retrieve, update, or delete data from the database. Databases manage data operations using **SQL**.

Express JS/Node JS

Express JS is a framework allowing you to build a Web applications with built-in functionalities:

- View templates (EJS files)
- Routing system
- Middleware

VS Code

Your code editor allowing you to write the code of your app.

Requests

- A web browser sends requests to a web server using http

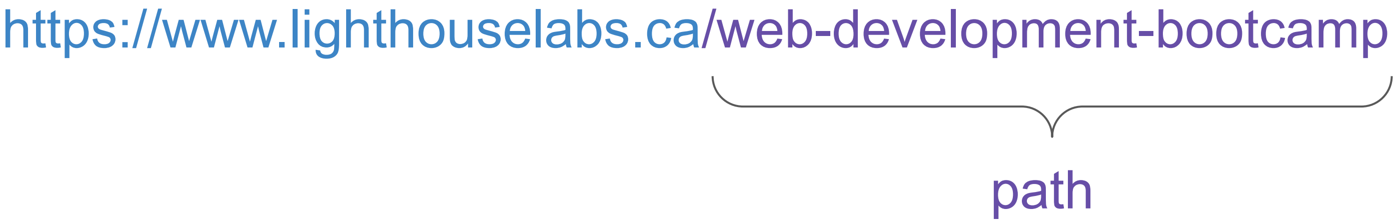
request = http verb + path (resource)

- 4 http verbs:

1. GET (Read)
2. POST (Create)
3. PUT (Update)
4. DELETE (Delete)

Request

- The path indicates the resource



https://www.lighthouselabs.ca/web-development-bootcamp

path

Response

- The web server sends back a response

resource (HTML document) + status code

Requests and Responses

- Requests and Responses contain 2 parts:

Headers + body

- **Headers**:
  - request or response meta-information
- **Body**:
  - Information submitted (Form) in the case of a request
  - Response sent by the server (HTML document)

Demo

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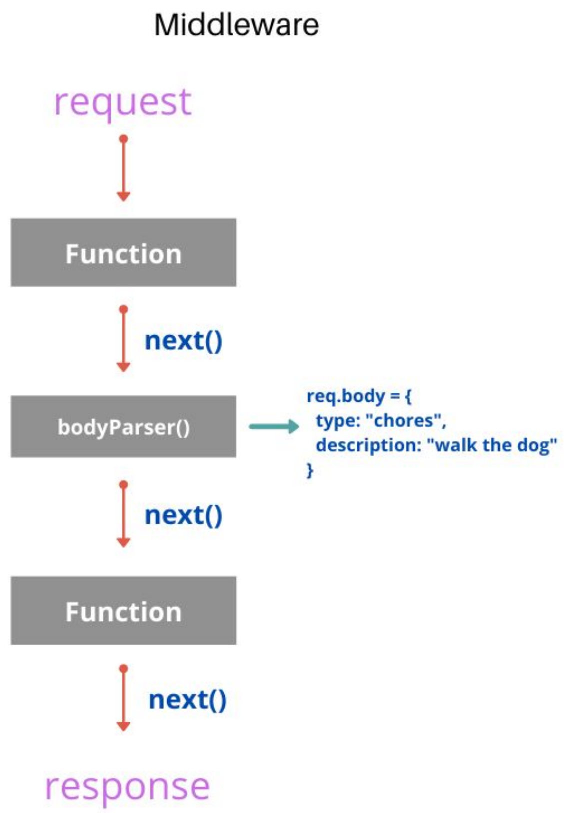
Middleware



```
req.body = {
  type: "chores",
  description: "walk the dog"
}
```

What are the benefits of Express?

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Questions?

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