

# Web Development Boot Camp

## Unit 09

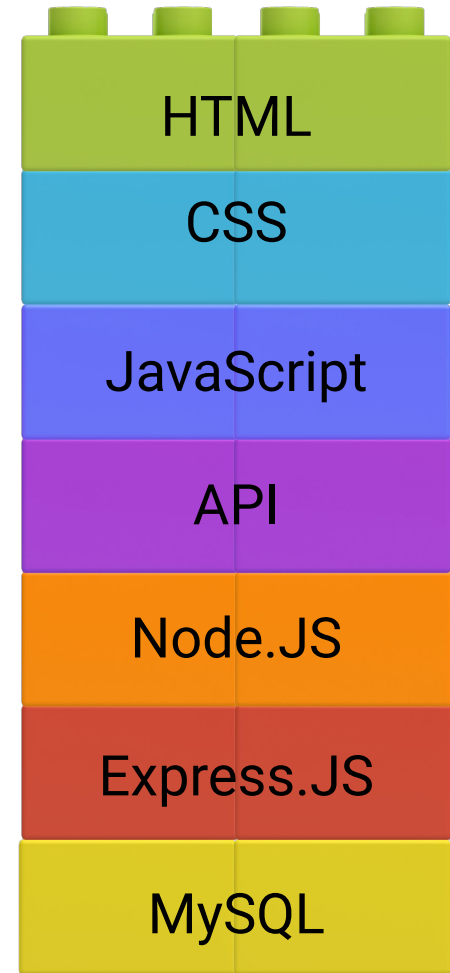


# **What is full-stack web development?**

# Full-Stack Web Development

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Full-stack web development encompasses the suite of tools required to build both the front and back ends of a web application.



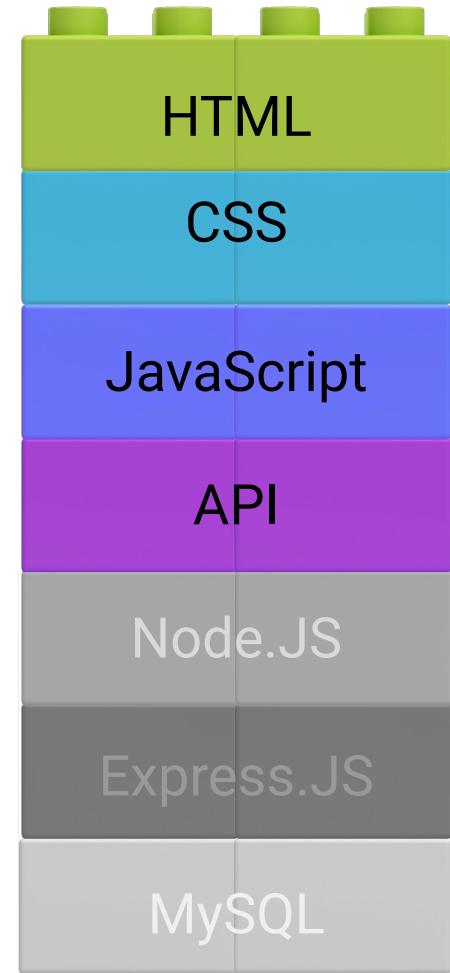


**How much of the stack do we know?**

# Client-Side

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So far, we have learned about client-side development. The three primary components of client-side code are HTML, CSS, and JavaScript. We can also fetch data from an API for use in the client.

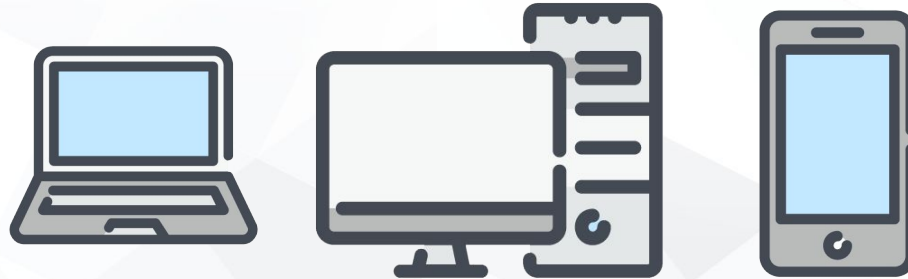


# What is a client?



A **client** is a piece of computer hardware or software that makes requests to a server. It can be a desktop computer, laptop, mobile device, and beyond!

[Further reading.](#)



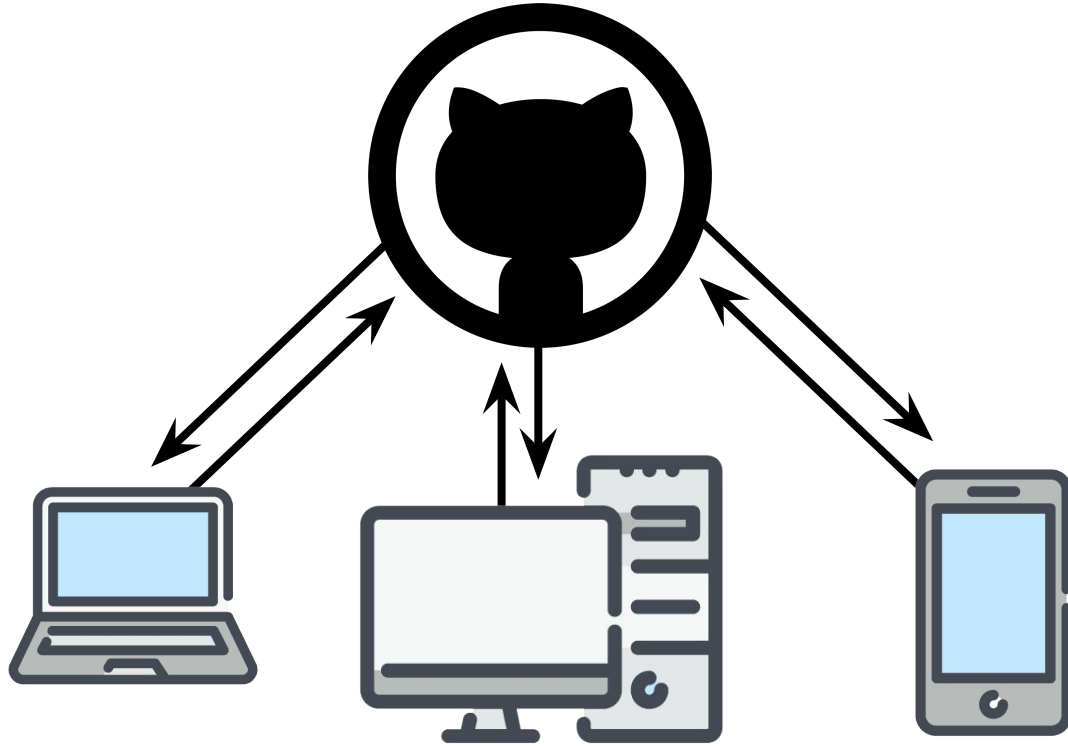
# What Is GitHub Pages doing?



# Deploying Projects to GitHub Pages

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GitHub Pages is serving content to clients.



# What is a server?

# Server Definition

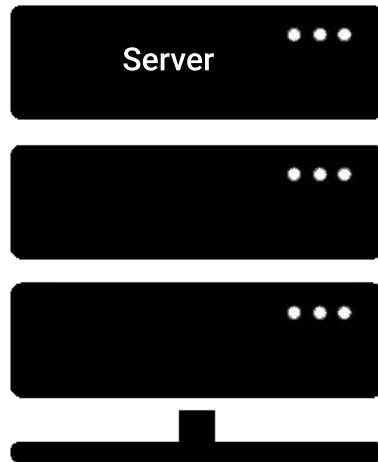
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Depending on the context, a server is both the physical hardware and the software that hears requests from users and returns something, like an HTML or image file, or completes a process.

```
var http = require("http");
var PORT = 8080;

function handleRequest(request, response) {
  response.end("It Works!! Path Hit: " + request.url);
}

var server = http.createServer(handleRequest);
server.listen(PORT, function() {
  console.log("Server listening on: http://localhost:" + PORT);
});
```

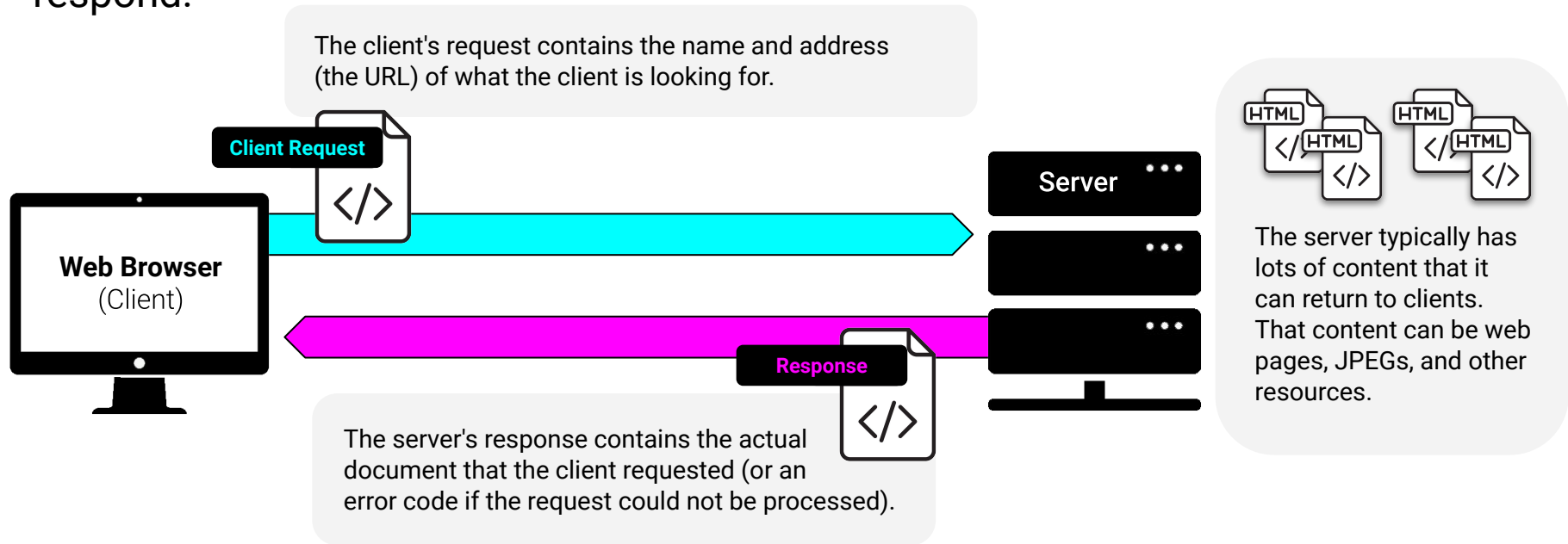




**What is the client-server model?**

# The Client-Server Model

In modern web applications, there is constant back-and-forth communication between the visuals displayed on the user's browser (the front end) and the data and logic stored on the server (the back end). Clients make requests, and servers respond.



**Key Question:**  
So what is ?

# Definition of NodeJS

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**Node.js** is an open source, cross-platform JavaScript runtime environment designed to be run outside of the browser.

It is a general utility that can be used for a variety of purposes including asset compilation, scripting, monitoring, and **most notably as the basis for web servers.**

