November 5, 2021

Back End Web Theory

**Back-End Web Theory**

**Intro**

**Goals**

* Dive deeper into how the web works on the back end
* Learn back-end web concepts

**Back-End Overview**

**The Big Question**

“What happens when I visit https://google.com?”

**How the Web Works**

![Diagram

Description automatically generated]()

Let’s dive deeper into what happens on the back-end part of the request/response pattern.

**Server receives request**

![A baseball player catching a ball

Description automatically generated with medium confidence]() Graphical user interface

Description automatically generated with low confidence

**Request is routed to controller**

Diagram

Description automatically generated

The server is responsible for taking the query and giving client back data.

**Back-end logic**

Diagram

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**Response is generated**

Diagram

Description automatically generated

**MVC**

**Model View Controller**

* A back-end web design pattern
* **Model**: database tables and object-oriented code to represent them
* **View**: HTML templates or Javascript code used to generate responses in HTML
* **Controller**: a section of the back-end code that handles certain URLs

A screenshot of a computer

Description automatically generated with medium confidence

**Web Architectures**

**Monolith**

* A **monolith** is a term for a traditional web application in which all logic is housed in **one app**
* There is a **single code base** that holds back-end logic for the entire application
* Usually the **most suitable option** for the individual projects you will build

**Microservices**

* An alternative to the monolith, usually for **highly complex** applications
* A **microservice** is a separate, smaller web applications exist to handle the various requests
* Helps with scalability, maintainability, and more
* Complexity also increases

**Other Web Frameworks**

If you’re passionate to learn about back-end web development, here is a list of other popular frameworks to check out:

* Python: Flask, Django
* Java: Spring Boot
* Javascript: Next.js, Meteor
* PHP: Laravel
* Ruby: Rails

**The End**