This cheat sheet is for the course <u>Learn C# Full Stack Development with Angular and ASP.NET</u> by Jannick Leismann.

# Full-Stack Development

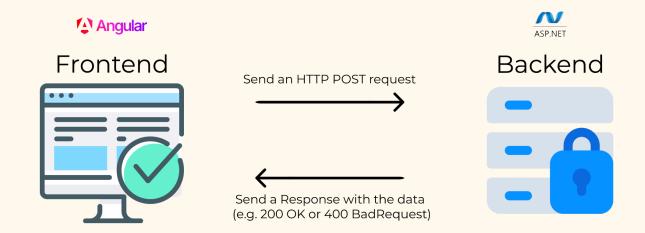
The process of working with a web application's **frontend** and **backend** is known as full stack development. A **full stack developer** is equipped to manage every step of creating a web application, from creating the user interface to controlling the server and database.

#### Frontend

Client User Interface/Website

#### **Backend**

Web Server and Database



## **HTTP Requests and Responses**

## Frontend (Side Client)

Request Initiation: A request is sent to the back end (server) by the frontend, which is typically a web browser. This may occur as a result of user input (such as pressing a button) or system input (such as page loading).

**HTTP Techniques: Typical HTTP techniques consist of:** 

**GET** 

Use the server to retrieve data.

#### **POST**

To create a new resource, send data to the server.

#### **PUT**

Modify a server resource that already exists.

#### DELETE

Takes an item off the server.

## Backend (Server-Side)

## **Processing Requests**

After receiving the HTTP request, the back end processes it (by running business logic or searching a database, for example) and returns a response.

## **Sending of Response**

The front end receives an HTTP response from the server. Usually, this reaction consists of:

### Status Code

Indicates the result of the request (e.g., 200 for success, 404 for not found).

## Headers

Metadata about the response (e.g., content type, length).

## **Body**

The actual data, often in formats like JSON or XML