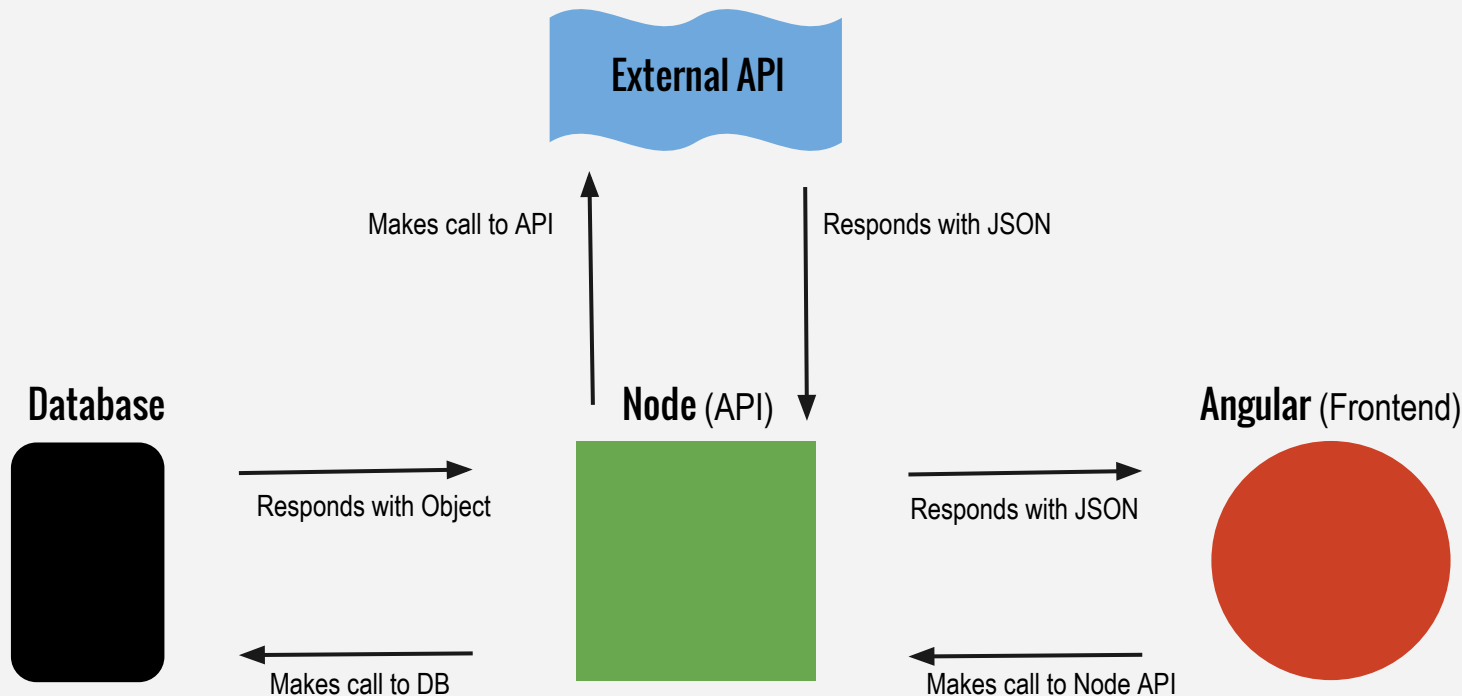


CS454 Node.js & Angular.js

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CSULA

Node & Angular - Week 7

Overall Architecture



Our Node Server

Ultimately - Our Node Server is doing ***two things***

- 1 - Handling the requests from our frontend
- 2 - Making the requests to another server aka API

File Structure

- `/models` contains all your models (only used when interacting with a DB)
- `config.json` contains all your configurations values for databases, APIs, etc
- `/views` contains your view-templates (using any templating language supported in express)
- `/public` or `/client` contains all static content (images, style-sheets, client-side JavaScript)
 - `/assets/images` contains image files
 - `/css` contains style sheets (or compiled output by a css engine)
 - `/js` contains client side JavaScript (Angular)
- `/routes` contain all your routes, separated by area of your application.

APIs

APIs (application programming interfaces) are a big part of web apps.

The four methods most commonly seen in APIs are:

GET - Asks the server to retrieve a resource

POST - Asks the server to create a new resource

PUT - Asks the server to edit/update an existing resource

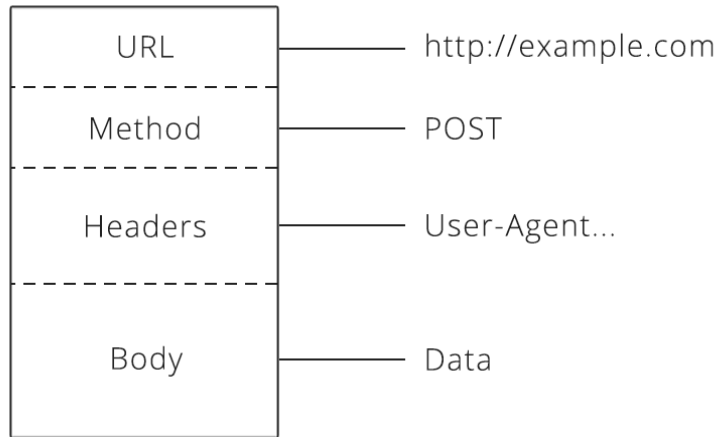
DELETE - Asks the server to delete a resource

APIs - Req/Res

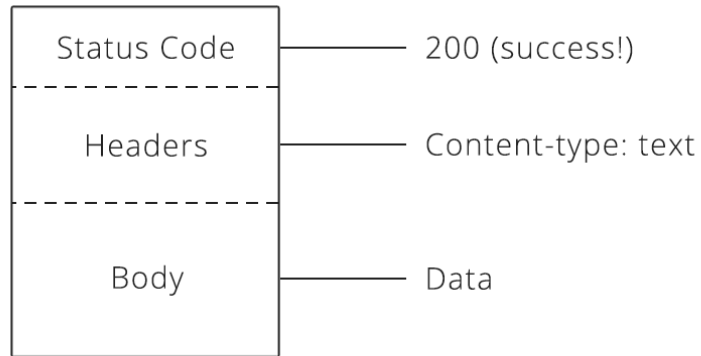
Communication in HTTP centers around a concept called the Request-Response Cycle.

The client sends the server a request to do something. The server, in turn, sends the client a response saying whether or not the server could do what the client asked.

APIs - Req/Res



Request



Response

JSON

APIs have adopted JSON as a format because it's built on the JavaScript, which is found everywhere on the web and usable on both the client side and server side of web apps.

JSON is a very simple format that has two pieces: keys and values. Keys represent an attribute about the object being described.

API Key Authentication

API Key authentication is a technique that overcomes the weakness of using shared credentials by requiring the API to be accessed with a unique key.

In this scheme, the key is usually a long series of letters and numbers that is distinct from the account owner's login password. The owner gives the key to the client, very much like a hotel gives a guest a key to a single room

API Key Authentication

So, where does the API key go?

API keys were conceived at multiple companies in the early days of the web. As a result, API key authentication is a bit like the wild west; everybody has their own way of doing it.

Over time, a few common approaches have emerged. One is to add the key onto the URL (`http://example.com?api_key=my_secret_key`).

Code Quality & Standards

Node.js Style Guide

<https://github.com/felixge/node-style-guide>

A style guide is a set of standards for the writing and designing code. A style guide establishes and enforces style to improve communication.

Code Efficiency

DEMO

```
function isPrime(n) {  
  
}
```