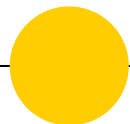


CS4220 Node.js & Angular.js

Cydney Auman
Albert Cervantes
CSULA



Node.js CLIs & APIs



Command Line Interfaces (CLI)

Command-line Interfaces or Command-line Applications, are programs designed to be used from the terminal/command-prompt. Command-line applications usually accept inputs as arguments. Additionally, they can accept options, often referred to as flags.

Examples:

- npm
- git



Node Command Line Args

`process.argv`

Returns an array containing the command line arguments passed when the Node.js process is run.

- The first element will be the Node.js executable path.
- The second element will be the path to the .js file being executed.
- The remaining elements will be any additional command line arguments.

```
const args = process.argv
```

```
console.log(args)
```



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



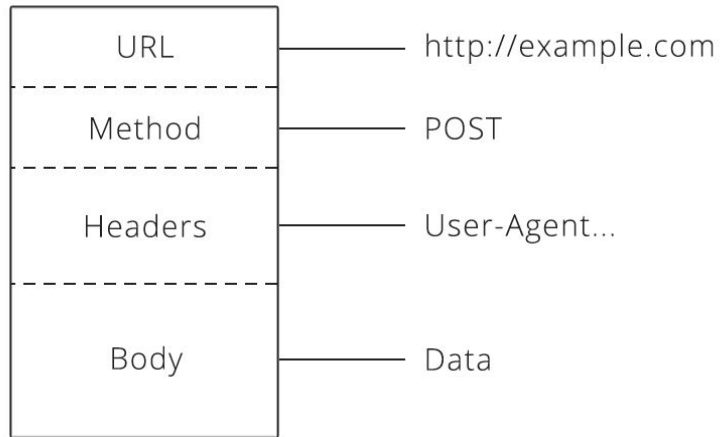
APIs - Req/Res

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

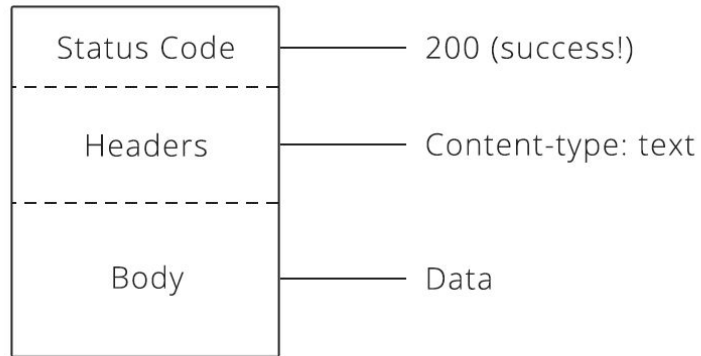
The client sends the server a request to do something. The server, in turn, sends the client a response saying whether or not the server could do what the client asked.



APIs - Req/Res



Request



Response



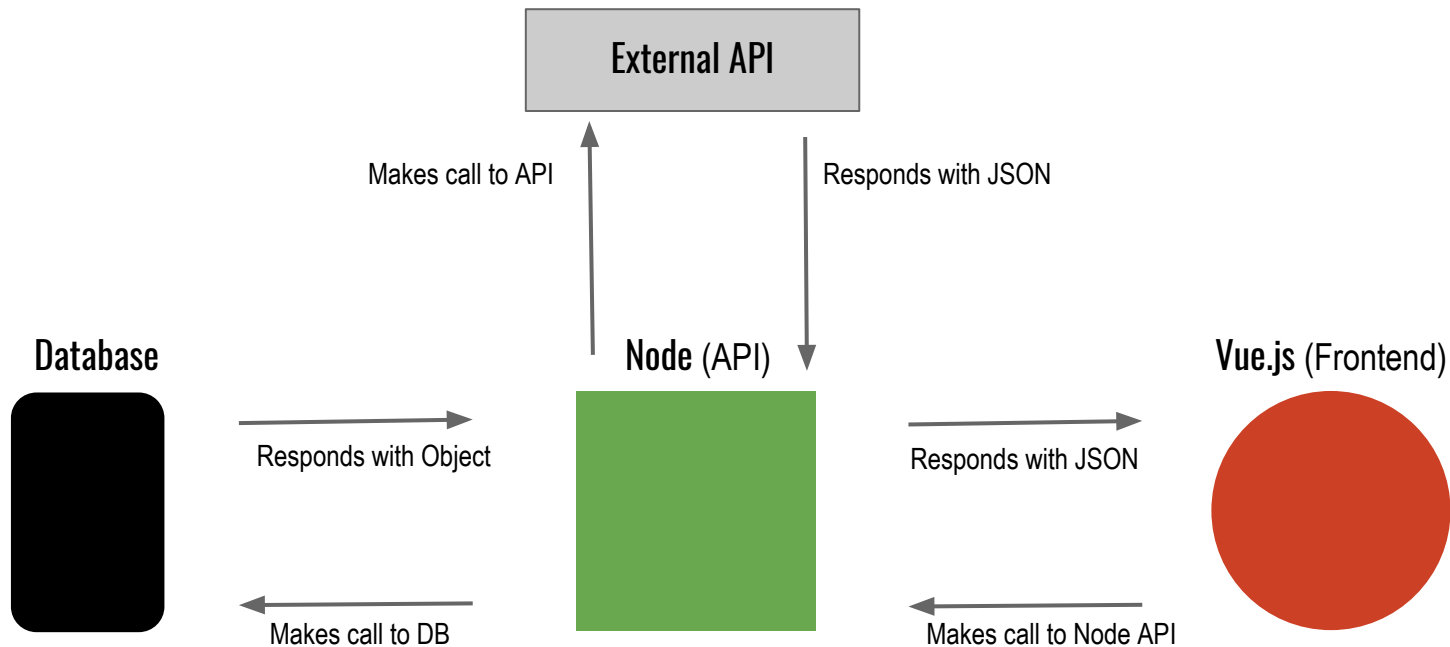
JSON

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.



Overall Architecture





NPM Basics

```
npm init
```

// assist in creating the package.json.

```
npm install
```

// installs all modules in the package.json – installed in the node_modules directory.

```
npm install --save <module-name>
```

// installs the module by name and auto-magically adds it to package.json.

```
npm uninstall --save <module-name>
```

// removes the module by name and auto-magically removes it to package.json.



Reading & References

Chapter 18 Eloquent JavaScript

http://eloquentjavascript.net/18_http.html

Intro to APIs

<https://zapier.com/learn/apis/chapter-1-introduction-to-apis/>