

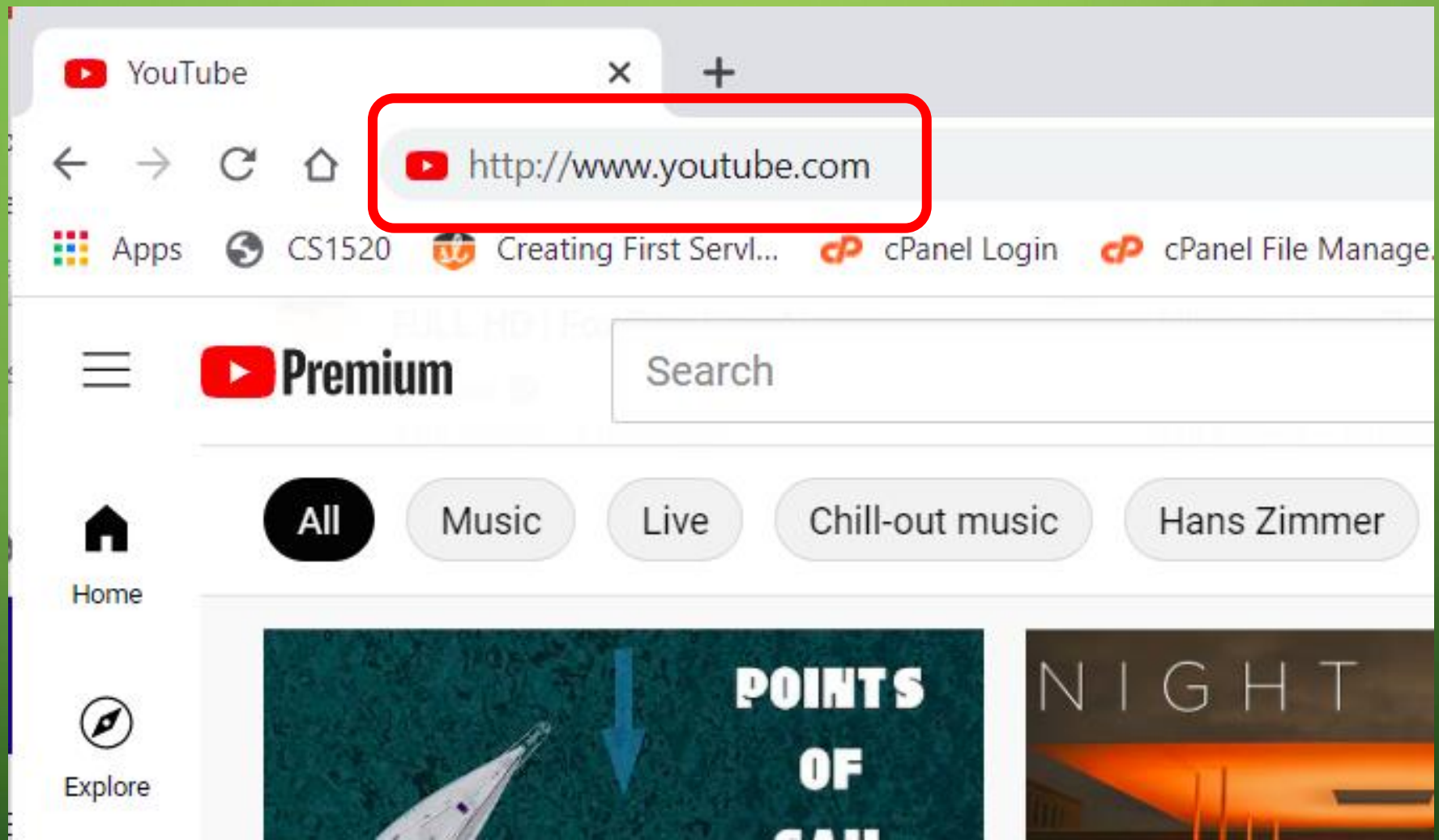
A decorative graphic on the left side of the slide, consisting of a network of thin, light green lines and small circles, resembling a circuit board or a stylized tree structure, set against a dark green background.

HTTP REQUEST

HTTP REQUEST

- HTTP: Hyper Text Transfer Protocol
- Communication between web servers and clients
- HTTP are used for Requests and Responses
- Used for a variety of tasks:
 - Loading pages
 - Form submission
 - Ajax calls

HTTP REQUEST



HTTP IS STATELESS

- Every request is completely independent of each other
- How can we save / retain information from other requests?
 - Local storage
 - Cookies
 - Session storage

WHAT IS HTTPS?

- Hyper Text Transfer Protocol Secure
- Data sent is encrypted
- Secure Sockets Layer (SSL) / Transport Layer Security (TLS)
- Requires that certificate is installed on web host

HTTP METHODS

- GET:
 - Retrieves data from the server
- POST:
 - Submit data to the server
- PUT:
 - Update data already on the server (whole dataset must be provided)
- PATCH:
 - Update data already on the server (partial dataset may be provided)
- DELETE:
 - Deletes data from the server

HTTP HEADER FIELDS

- Every request or response has a header along with the data being sent or received
- The header contains a great deal of information about the request

method	path	protocol
GET	/tutorials/other/top-20-mysql-best-practices/	HTTP/1.1

```
Host: net.tutsplus.com
User-Agent: Mozilla/5.0 (Windows; U; Windows NT 6.1; en-US; rv:1.9.1
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip,deflate
Accept-Charset: ISO-8859-1,utf-8;q=0.7,*;q=0.7
Keep-Alive: 300
Connection: keep-alive
Cookie: PHPSESSID=r2t5uvjq435r4q71b3vtdjq120
Pragma: no-cache
Cache-Control: no-cache
```

HTTP headers as Name: Value

HTTP STATUS CODES

- Every time there is a response, a status code is also provided
- 1xx: Informational
 - Request received / processing
- 2xx: Success
 - Successfully received, understood, and accepted
- 3xx: Redirect
 - Further action must be taken / redirect
- 4xx: Client Error
 - Request does not have what it needs
- 5xx: Server Error
 - Server failed to fulfil an apparent value request

Examples:

- 200: OK
- 201: ok created
- 301: moved to new URL
- 400: bad request
- 401: unauthorized
- 404: not found
- 500: Internal server error

The background is a solid green color with a subtle gradient. In the four corners, there are decorative white line art elements that resemble circuit board traces or neural network connections. These lines are of varying lengths and angles, some ending in small circles. The top-left and bottom-left corners have more complex, branching patterns, while the top-right and bottom-right corners have simpler, more linear patterns.

HTTP REQUESTS HANDS-ON

The background is a green gradient. In the corners, there are decorative circuit-like patterns made of thin white lines and small circles, resembling a PCB layout.

INSTALLING THE FREE POSTMAN APP

postman.com/downloads/



The Postman app

The ever-improving Postman app (a new release every week) gives you a full-featured Postman experience.

 **Windows 64-bit**

By downloading and using Postman, I agree to the [Privacy Policy](#) and [Terms](#).

Version 9.13.0 · [Release Notes](#) · [Product Roadmap](#)



Home

Workspaces ▾

Reports

Explo



Twitter's Public Workspace

New

Import

GET Single



Collections



Twitter API v2 Fork label



Tweet Lookup



GET Single Tweet

e.g. 200 Success - Request

e.g. 200 Success - Request

e.g. 200 Success - Request

e.g. 200 Success - Request

e.g. 200 Success - Default P

e.g. 429 Rate Limit Exceede



APIs



Environments



Mock Servers



Monitors

Twitter

GET

Params

Query

BOOK SALE API

Simple Books API

- This API allows you to reserve a book.
- Search for: <https://simple-books-api.glitch.me> documentation
- Tutorial video: <https://www.youtube.com/watch?v=VywxIQ2ZXw4>

Postman

File Edit View Help

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Invite

Upgrade

My Workspace

NewImport

Overview

GET get status

+

...

No Environment

▼

Collections

+⋮

⋮

http request sample

▼

GET get status

APIs

Environments

Mock Servers

Monitors

Flows

History

http request sample / get status

Save

▼

...

GET

▼

https://simple-books-api.glitch.me/status ...

Send

▼

Params

Auth

Headers (7)

Body

Pre-req.

Tests

Settings

Cookies

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
	Key	Value	Description		

Body

▼

200 OK361 ms226 B

Save Response

▼

PrettyRawPreviewVisualizeJSON

▼

1{

2"status": "OK"

3}

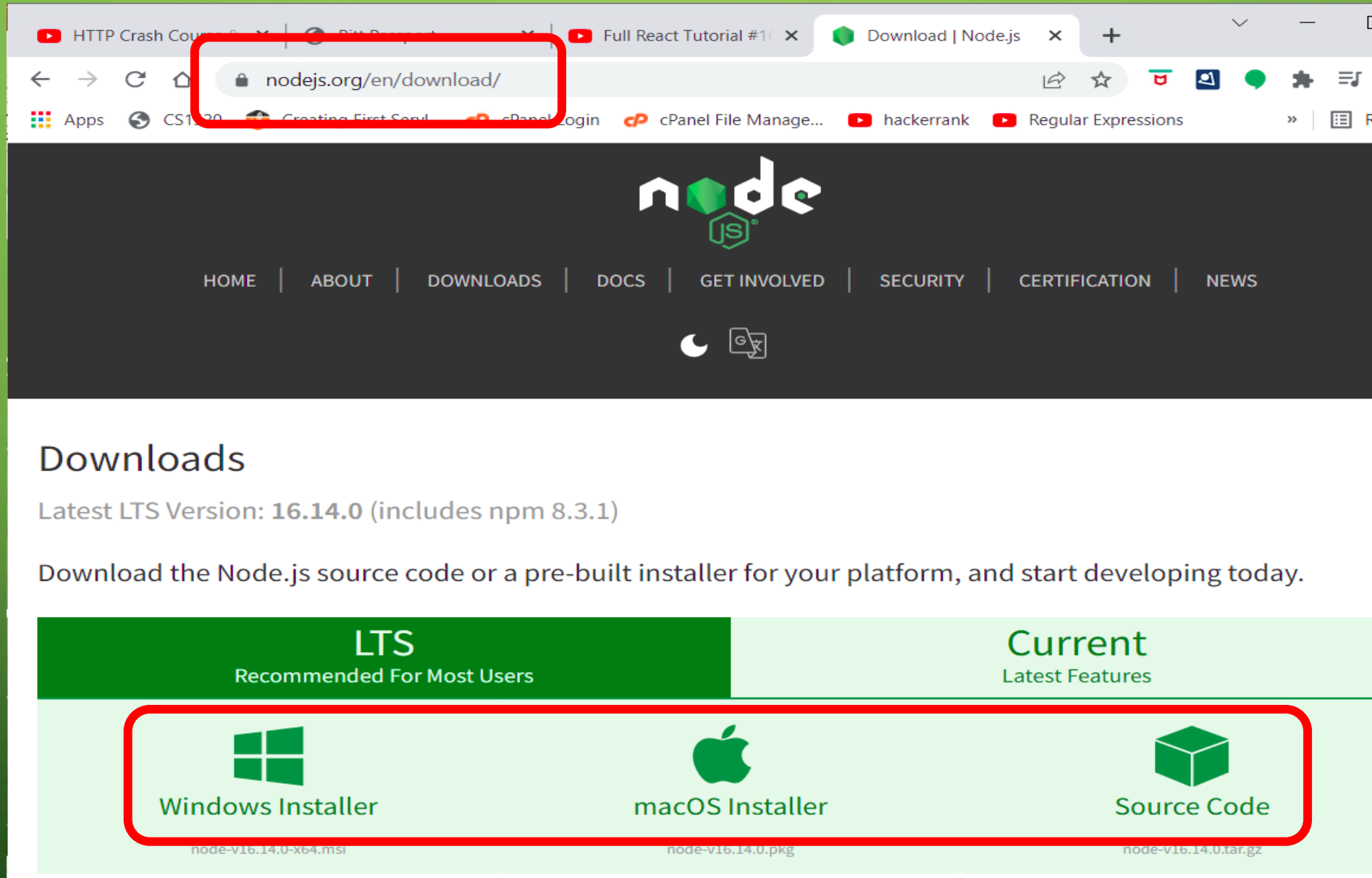
The background is a solid green gradient. In the corners, there are decorative circuit-like patterns made of thin white lines and small circles, resembling a stylized PCB or network diagram.

USING JAVASCRIPT TO GENERATE HTTP REQUESTS

INSTALLING NODE.JS

WE WILL USE IT TO RUN OUR FAKE DATABASE (JSON FILE)

WWW.NODEJS.ORG/EN/DOWNLOAD



The screenshot shows the Node.js download page. A red box highlights the browser's address bar containing the URL `nodejs.org/en/download/`. Another red box highlights the download options section, which includes the LTS and Current tabs, and the Windows Installer, macOS Installer, and Source Code links.

nodejs.org/en/download/




node

HOME | ABOUT | DOWNLOADS | DOCS | GET INVOLVED | SECURITY | CERTIFICATION | NEWS

Downloads

Latest LTS Version: **16.14.0** (includes npm 8.3.1)

Download the Node.js source code or a pre-built installer for your platform, and start developing today.

LTS Recommended For Most Users	Current Latest Features	
 Windows Installer <small>node-v16.14.0-x64.msi</small>	 macOS Installer <small>node-v16.14.0.pkg</small>	 Source Code <small>node-v16.14.0.tar.gz</small>

RUNNING A FAKE DATABASE

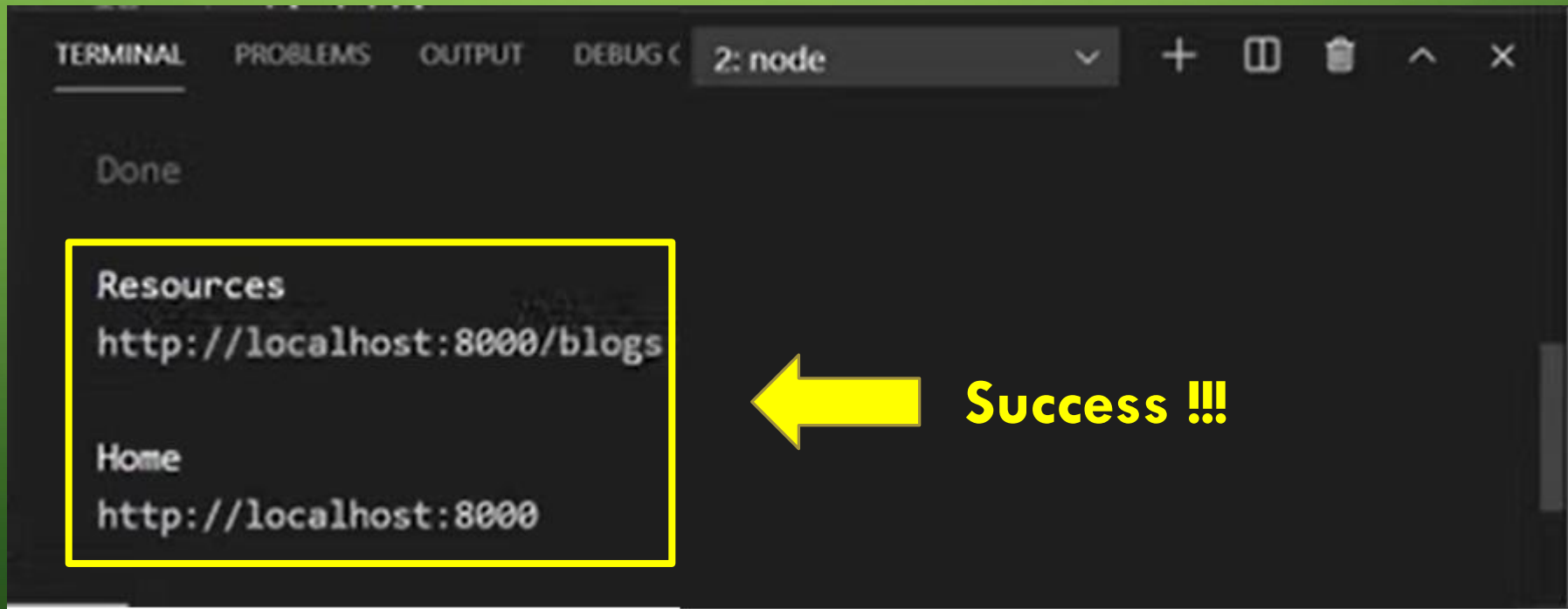
- Fake database will be a json file
 - Create a new directory for our http project
 - In VS Code, create a json file, such as db.json
 - Place the following content on it:

```
{  
  "blogs": [  
    {  
      "title": "Brigadeiros",  
      "body": "some text here",  
      "author": "Mrs. Cozinheira",  
      "id": 1  
    },  
    { place another block like the one above }  
  ]  
}
```

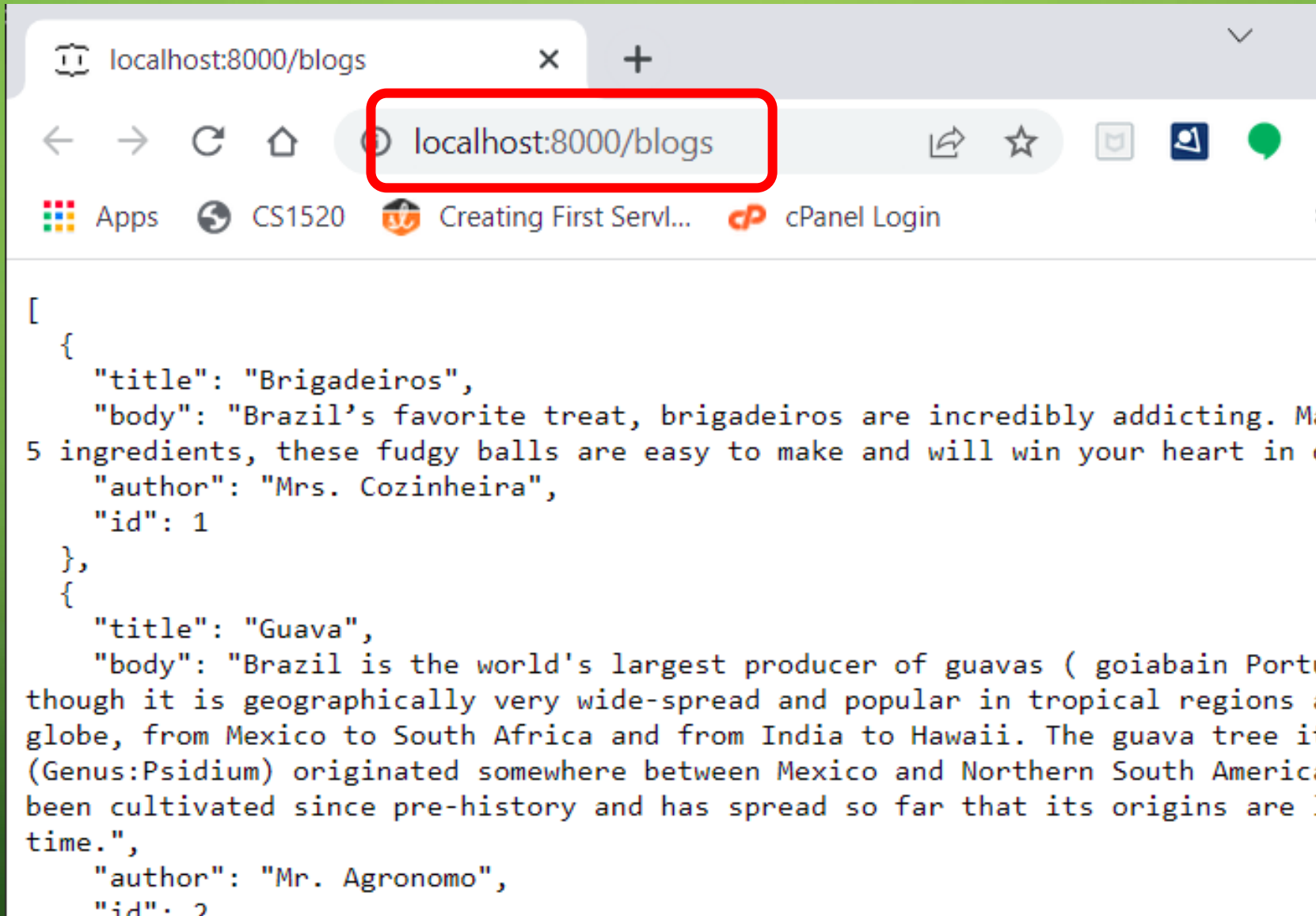
RUNNING THE FAKE SERVER

- Open a new terminal within VS Code
- On the terminal window, type:

`npx json-server --watch db.json --port 8000`



HTTP GET REQUEST



The background is a solid green gradient. In the corners, there are decorative white line art elements resembling circuit boards or neural networks, with lines and small circles connecting them.

JAVASCRIPT COMMANDS TO GENERATE HTTP REQUESTS

GET REQUEST

```
async function httpGetRequest(theUrl) {  
  return await fetch(theUrl)  
    .then(response => {  
      return response.json();  
    })  
    .then(data => {  
      return data;  
    })  
    .catch(error => console.error('Error:', error));  
};
```

POST REQUEST

```
async function httpPostRequest(theUrl, newBlog) {  
  return await fetch(theUrl, {  
    method: 'POST',  
    body: JSON.stringify(newBlog),  
    headers: {  
      'Content-type': 'application/json; charset=UTF-8',  
    }  
  })  
  .catch(error => console.error('Error:', error));  
}
```

PATCH REQUEST

```
async function httpPatchRequest(theUrl, updatedField) {  
  return await fetch(theUrl, {  
    method: 'PATCH',  
    body: JSON.stringify(updatedField),  
    headers: {  
      'Content-type': 'application/json; charset=UTF-8',  
    }  
  })  
  .catch(error => console.error('Error:', error));  
}
```

DELETE REQUEST

```
async function httpDeleteRequest(theUrl) {  
  return await fetch(theUrl, {  
    method: 'DELETE'})  
  .catch(error => console.error('Error:', error));  
}
```

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HANDS-ON: THE BLOG APP



HTTP REQUESTS VIA JAVASCRIPT

HTTP Requests - JavaScript

View All Blogs

View all blog entries

View details of a single Blog

View Blog #

Add a new Blog

Add new Blog

Change an existing Blog

Change Blog

Deleting an existing Blog

Delete Blog

Response Display