Building and Testing the REST API

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Overview

Building the REST API

Testing the REST API

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Steps for Building a JavaScript REST API Steps

Create project folder & navigate into it

• mkdir <NAME>api
• cd <NAME>api

 # Create a version folder & navigate into it

• mkdir v1
• cd v1

 # Create a src folder & navigate into it

• mkdir src
• cd src

 # Create package.json file (Initialize the Node.js Project)

• npm init –y

 # Update the package.json file with settings

 # Create a JavaScript index file (entry point of the API)

• touch index.js

 # Install Express Middleware / dependencies

•npm install --save body-parser
•npm install --save cors
•npm install --save nodemon

 # Install Express

• npm install --save express

 # Set "dev" script in the package.json file to handle restart after changes

• "main": "index.js",
• "scripts": {
• "dev": "nodemon src/index.js"
• },

 # Start the Express server on the nodeman tool

• npm run dev

 # Update the index.js file

• *// Add middleware / dependencies*
• *// Add express*
• *// Set port*
• *// Code for array*
• *// Configure middleware*

 # Add our Routes to index.js

•Route for the root entry point for REST API
•GET Route/s
•POST Route
•DELETE Route

github.com/Buchatech/Jokes-REST-API

 # Run the REST API

• node index.js

 # Update port / listening info in Index.js file

•app.listen(port, () => console.log(`Hello world app listening on port ${port}!`));

Demo

Demo: Build a REST API with JavaScript, Node JS, and Express
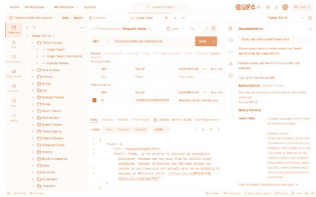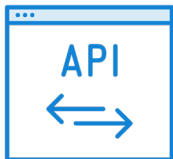
Testing the REST API

Intro to Postman

Postman is a tool for working with Application Programming Interfaces (APIs)

Postman has a free tier and paid tiers billed monthly or annually

You can use Postman to build, test and modify APIs

Postman is used by over 20 million developers every month

Postman can make various types of HTTP requests(GET, POST, PUT, PATCH), save environments for later use, convert the API to code for various languages(i.e., JavaScript, Python)

Works on cross-platform Windows, macOS, Linux

Installing Postman

Install Postman on Windows

Download the latest Postman version

Select and run the .exe file to install Postman
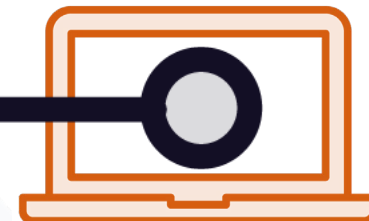
Install Postman on Mac

brew install --cask postman
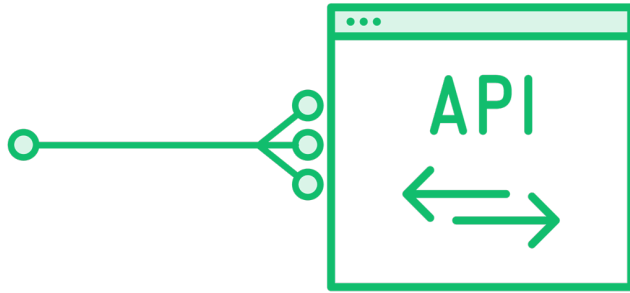
Installing Postman on Linux

On Ubuntu run:

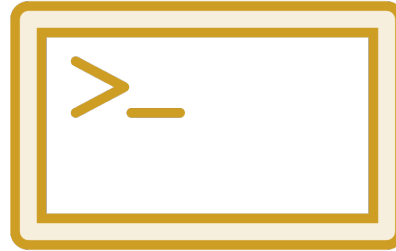**sudo snap install postman**

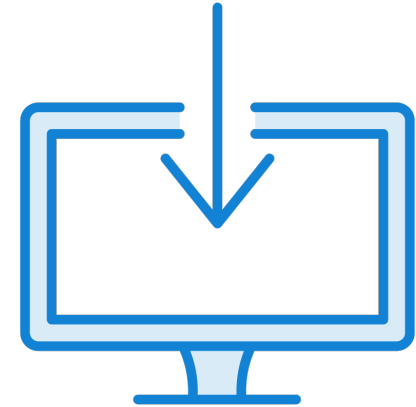**Note: Other Linux flavors will differ**

Intro to Curl

Curl is a tool often used for testing the output of APIs or getting a response from a website

Curl is a command-line tool allowing us to work with:

- Various HTTP/S requests(GET, POST, PUT, PATCH)
- User authentication
- FTP/s
- Cookies
- Telnet
- LDAP
- & more

Curl is typically pre-installed in Linux-based OS's if not it can also be downloaded & installed

```
# GET method to a URL with Curl
curl http://www.myapi.com

# Post method to a URL with Curl
curl --data "name=John&surname=Doe" http://www.myapi.com

# Fetch data from an API with Curl
curl --request GET --url https://moviesdb.com/movies/all
```

Curl command examples

Demo

Demo: Use Postman and Curl to test the REST API and Perform CRUD Operations

Summary

In this module we covered:

- How to build a REST API
- Various ways to test the REST API
- How to perform various CRUD operations on the REST API

Why this is important?

- The last step in the process laid out in this course is to build a REST API with JavaScript and Express as well as to test the REST API is working and perform CRUD operations to use it.