A photograph of a person from the chest up. They are wearing a dark blue jacket with white vertical stripes and a white shirt underneath. They are also wearing blue sunglasses. A hand is holding a magnifying glass over their right eye, focusing it directly at the viewer. The background is blurred, showing what appears to be a street or path.

# BUILDING SEARCH EXPERIENCES ON THE WEB WITH ELASTICSEARCH

CARLY RICHMOND



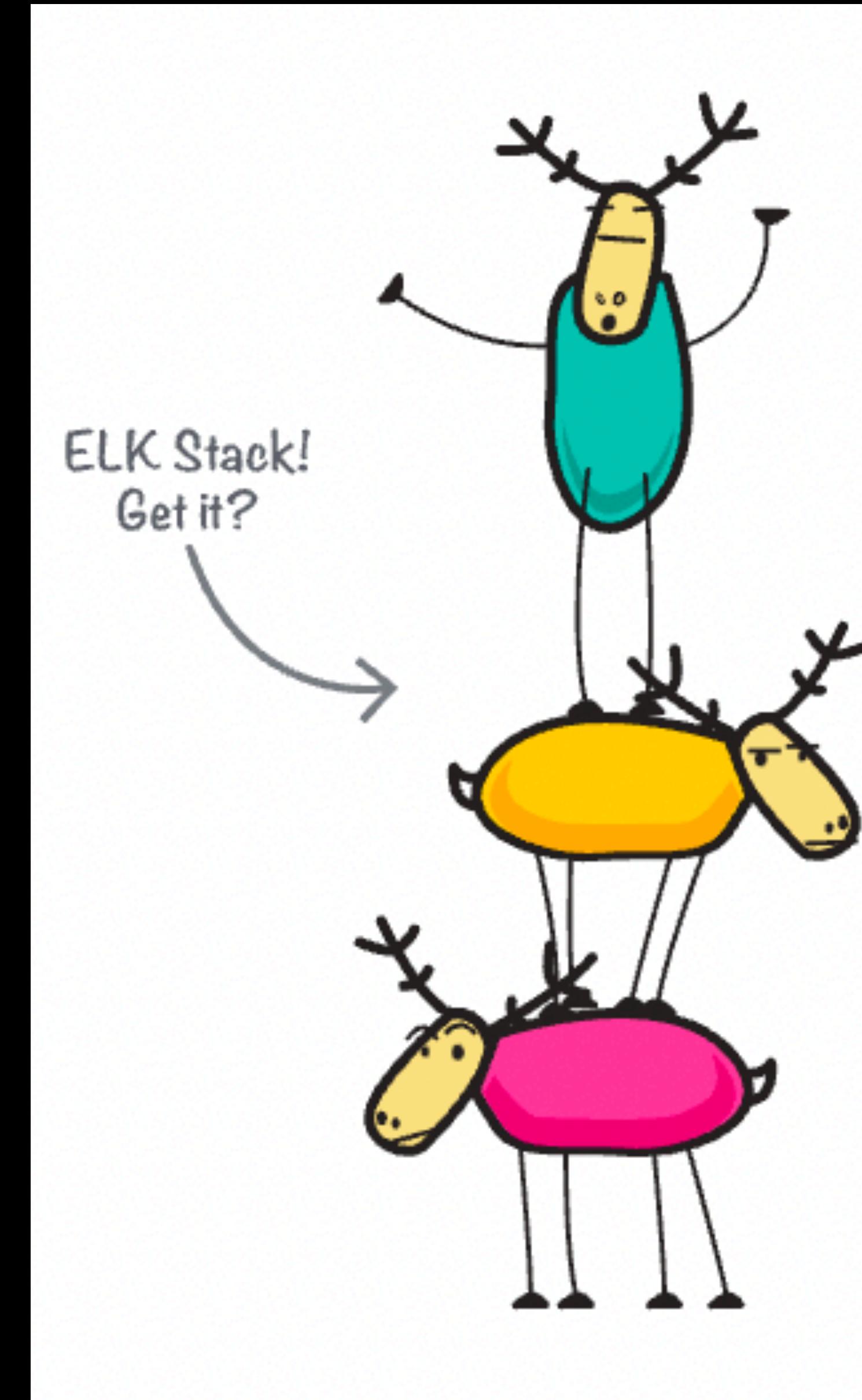
X



Carly Richmond

# ELK

- Elasticsearch
  - Distributed search and analytics engine
- Logstash
  - Data processing pipeline
- Kibana
  - Data visualization platform

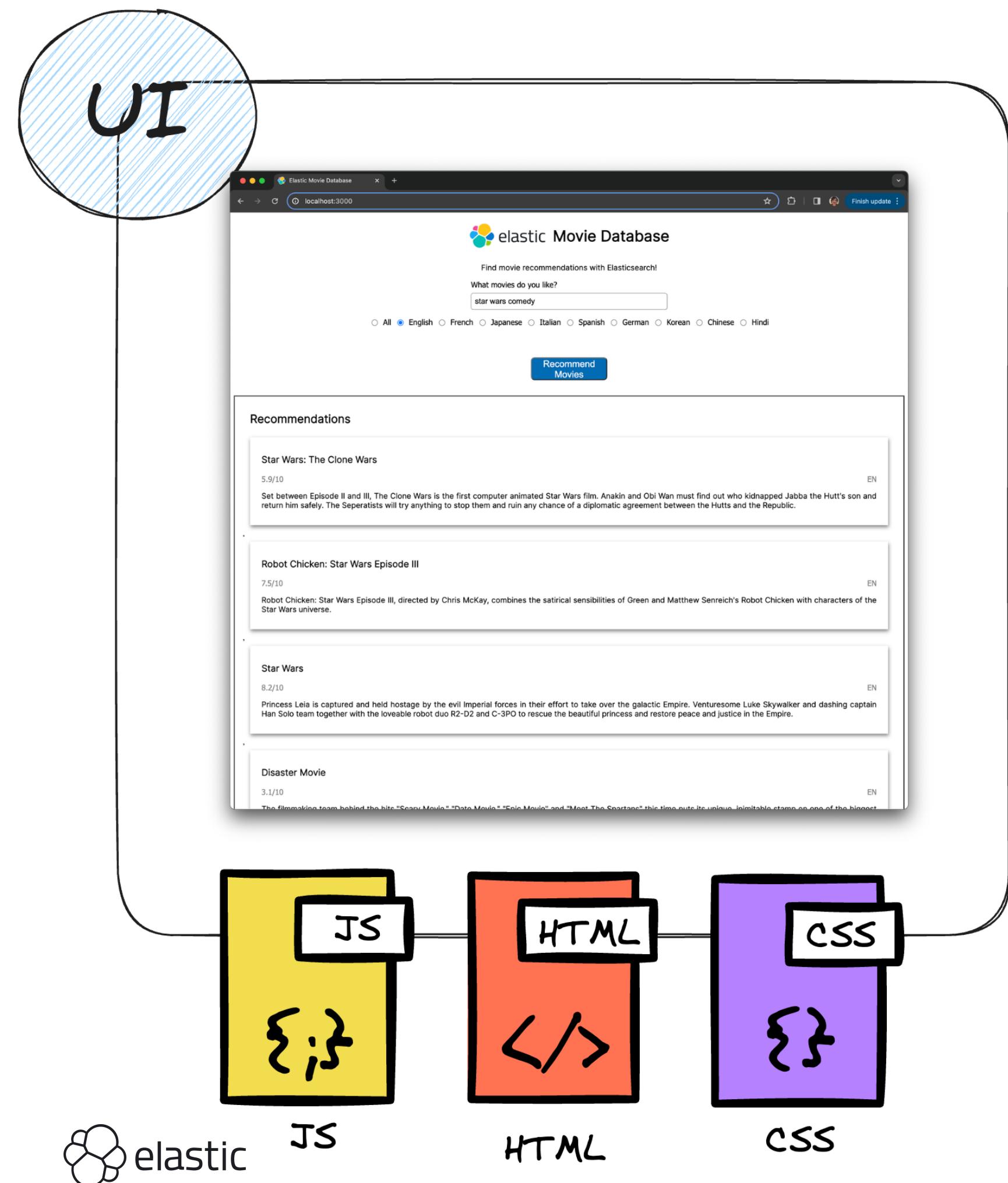


**E** Elasticsearch

**L** Logstash

**K** Kibana

# FINAL RESULT

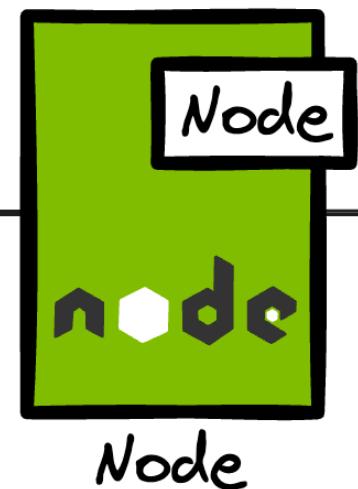


Question

Answer

Server  
(Express.js)

Question



# EXTENSION



Question

Answer



Question

Top Documents

Prompt

Answer

Carly Richmond

# PREREQUISITES

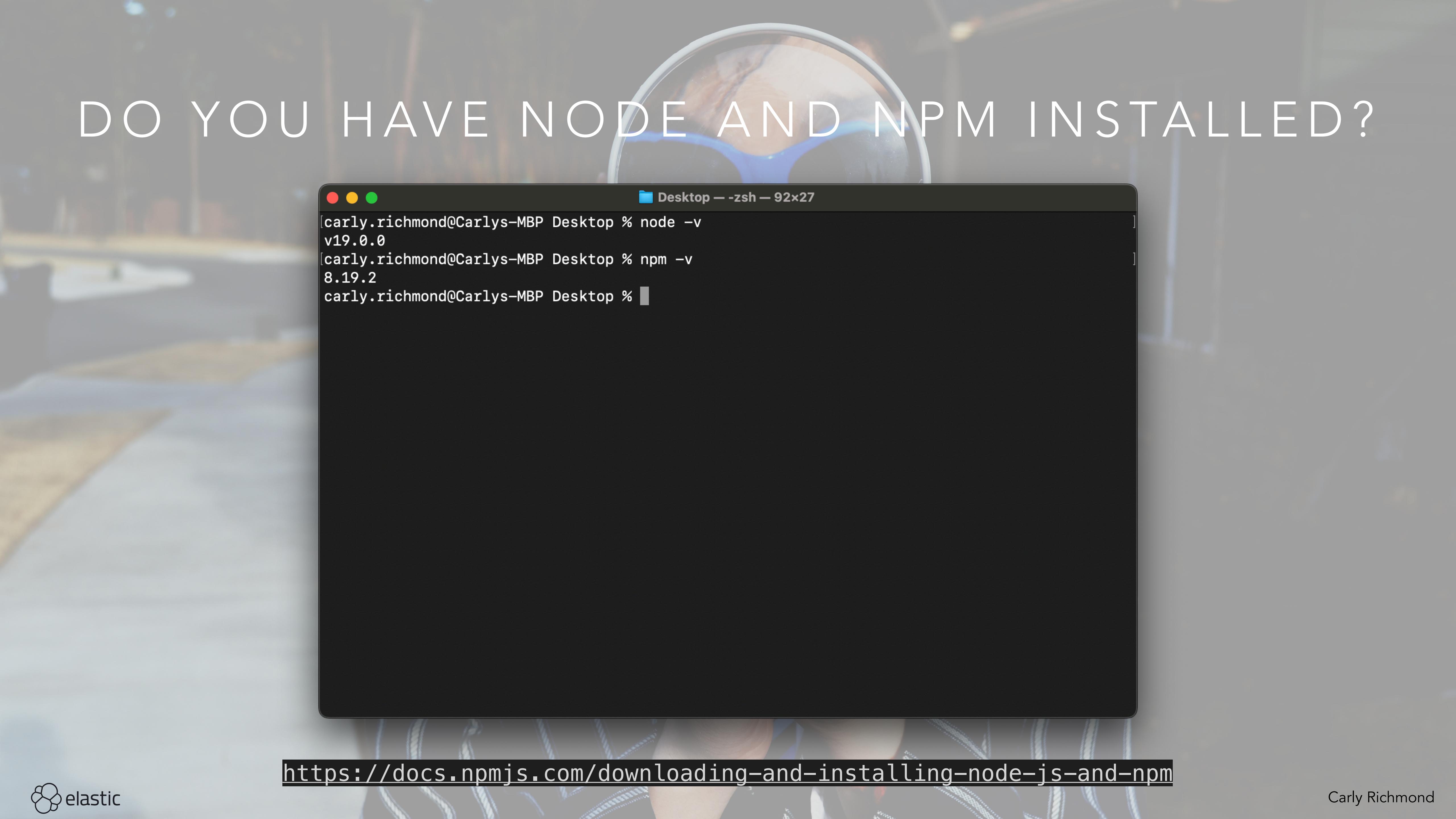


# CLONE STARTING REPO

The screenshot shows a GitHub repository page for 'elasticsearch-web-search-experiences'. The 'Code' tab is selected. A 'Clone' modal is open, displaying options for Local, Codespaces, HTTPS, SSH, and GitHub CLI. The HTTPS URL is highlighted: <https://github.com/carlyrichmond/elasticsearch-web-search-experiences>. The modal also includes 'Copy url to clipboard' and 'Clone using the web URL.' buttons. The repository tree on the left shows files like .vscode, data, diagrams, lab-sheets, solution-app, starting-app, .gitignore, LICENSE, and README.md. The README file is open, showing its content.



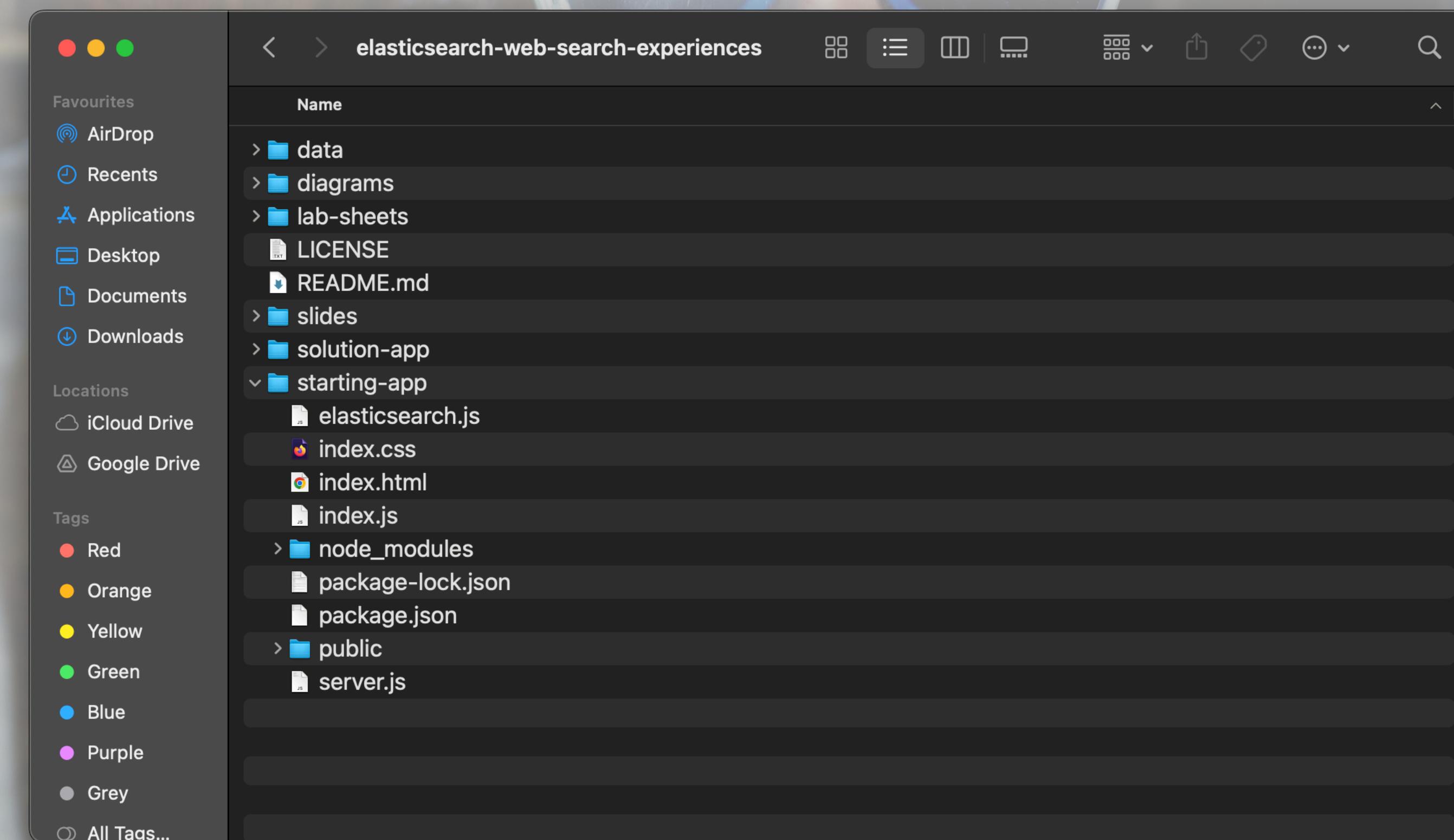
# DO YOU HAVE NODE AND NPM INSTALLED?



```
Desktop --zsh-- 92x27
[carly.richmond@Carlys-MBP Desktop % node -v
v19.0.0
[carly.richmond@Carlys-MBP Desktop % npm -v
8.19.2
carly.richmond@Carlys-MBP Desktop % ]
```

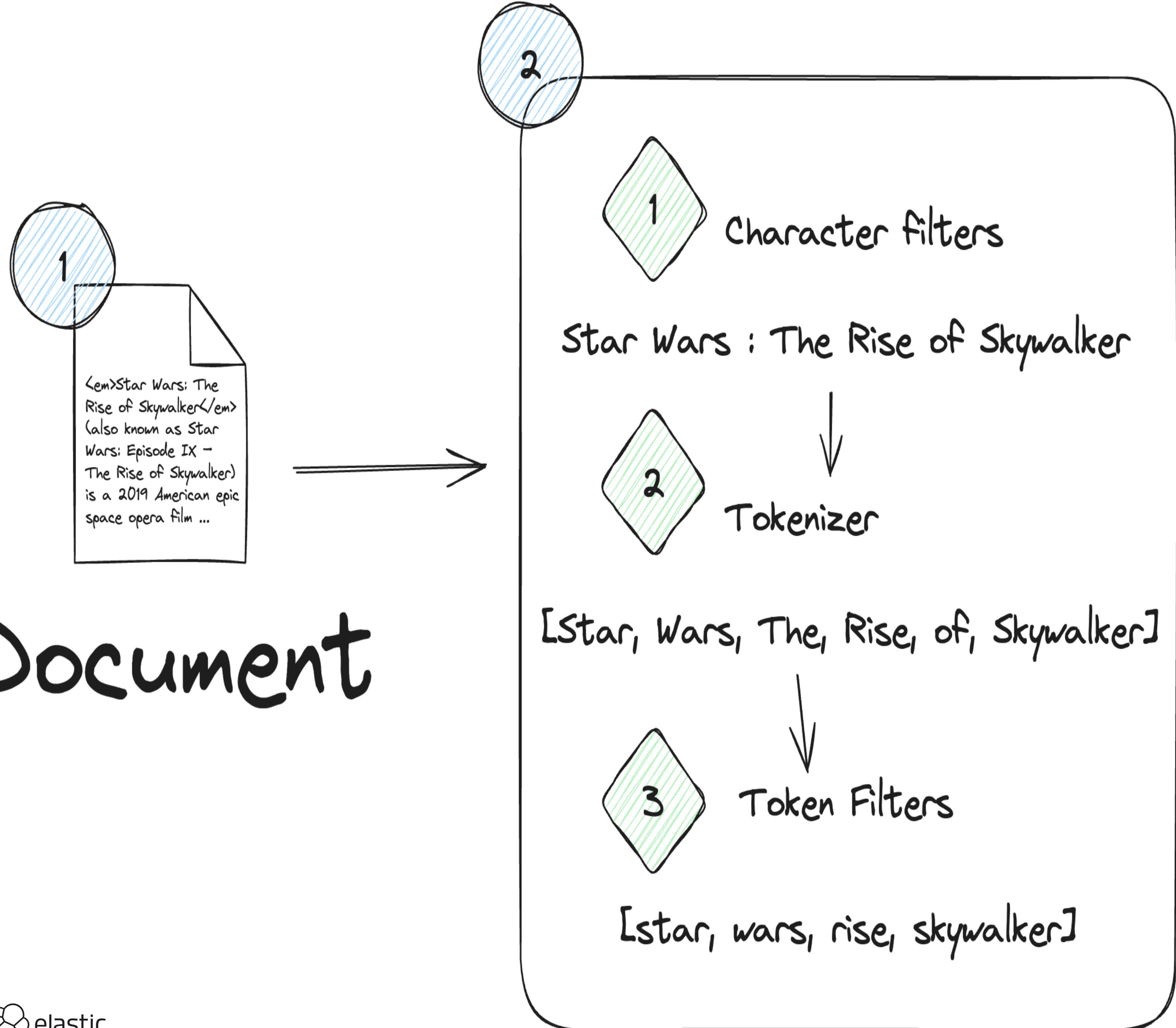
<https://docs.npmjs.com/downloading-and-installing-node-js-and-npm>

# PROJECT STRUCTURE

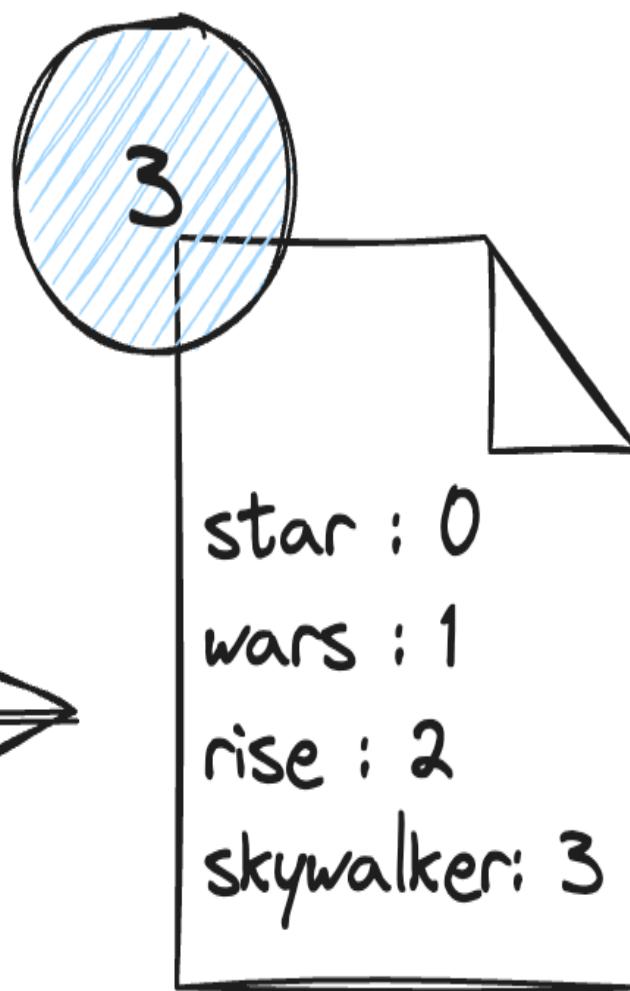


# DATA INGESTION

# Document



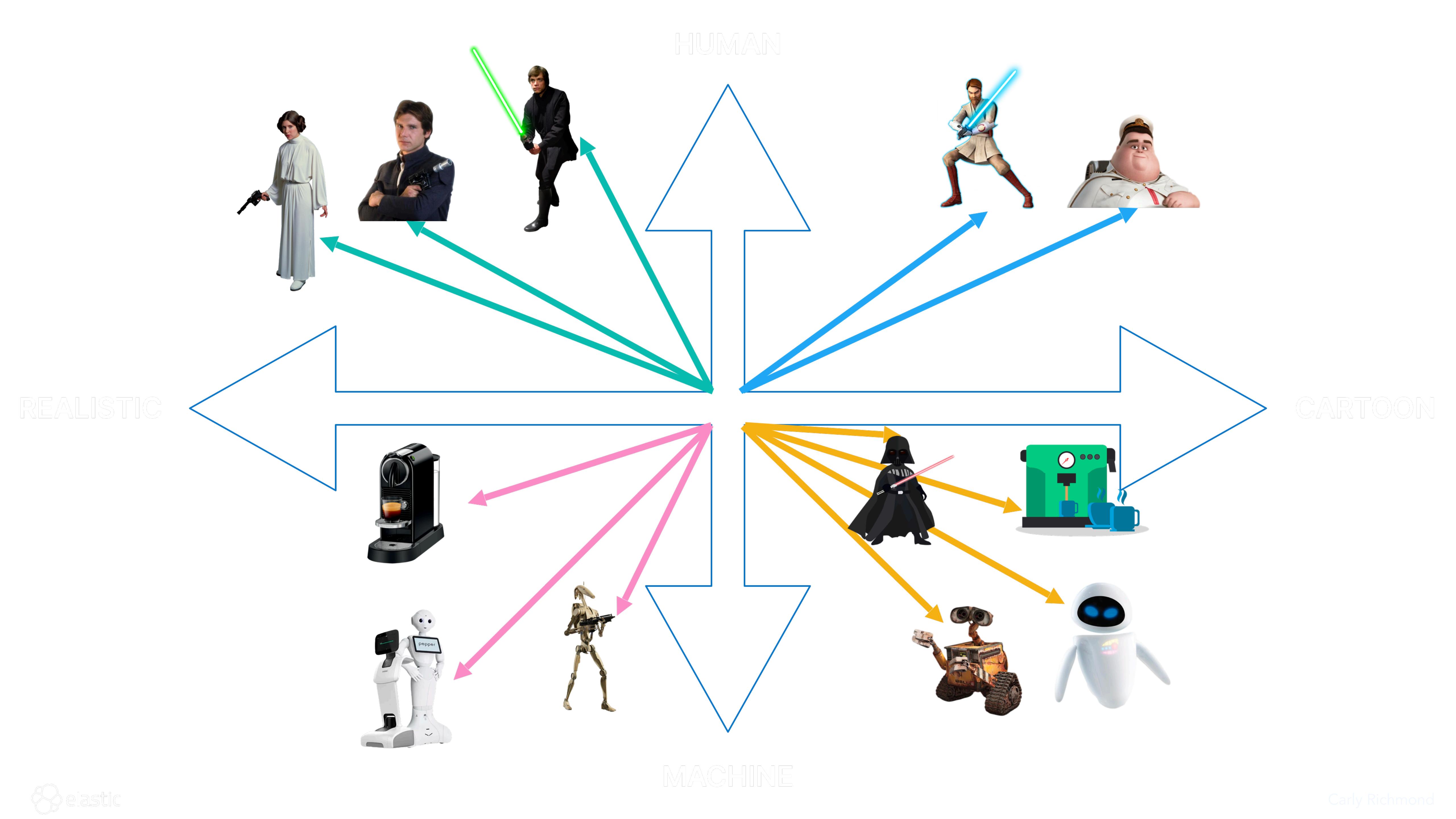
# Inverted Index



TEXT SEARCH

APP SEARCH N°...

3



# VECTOR EMBEDDINGS

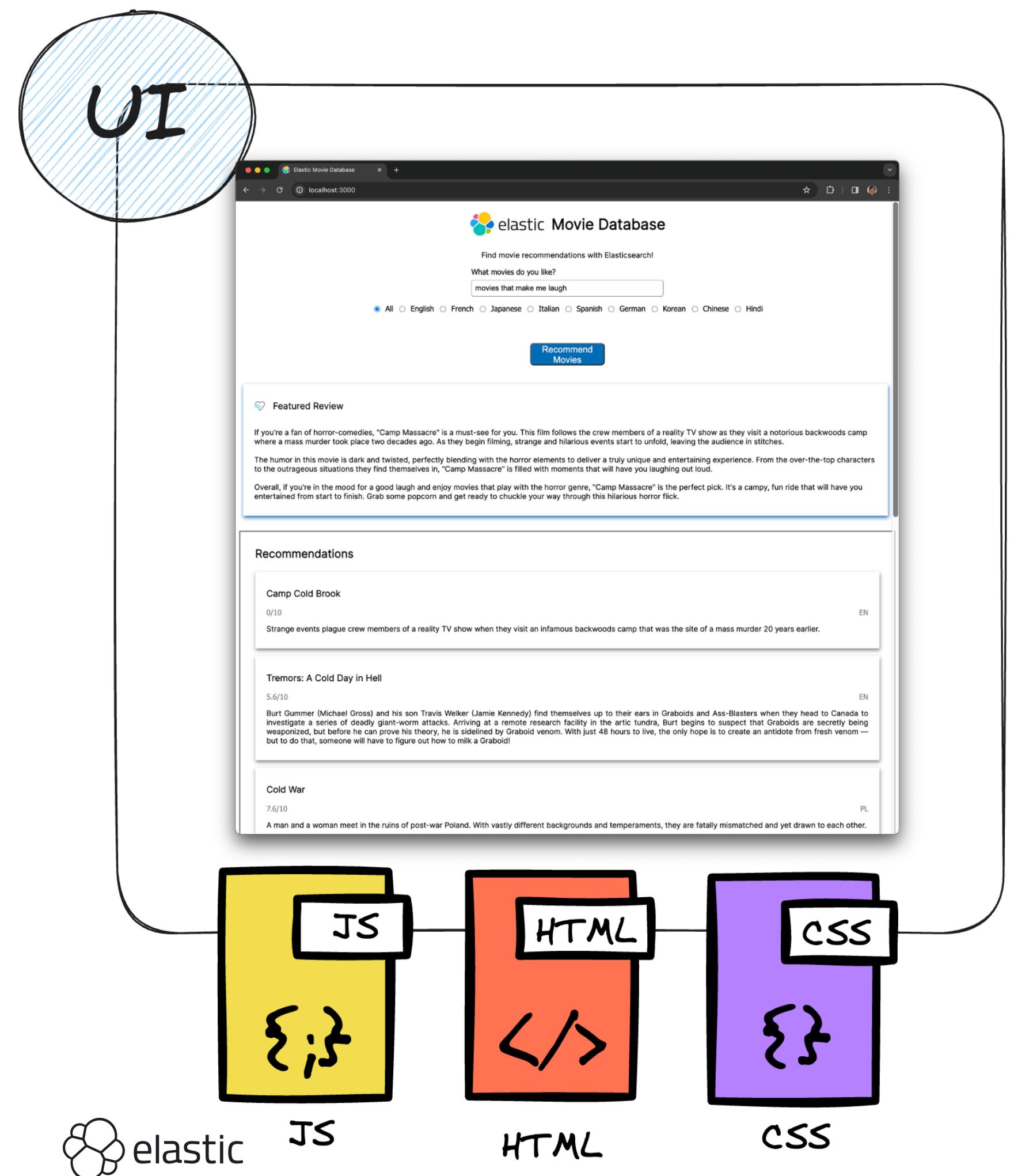
# VECTOR VS LEXICAL SEARCH



# HYBRID SEARCH

# RAG APPLICATION

# EXTENSION

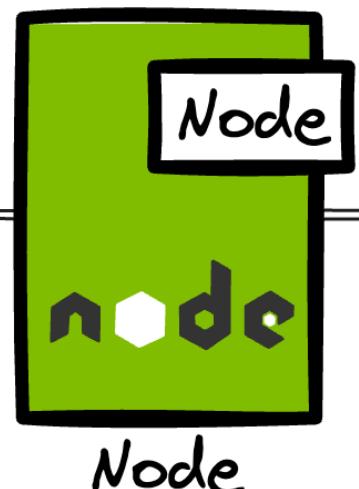


Question

Answer

Server  
(Express.js)

LangChain



Question

Top  
Documents

Prompt

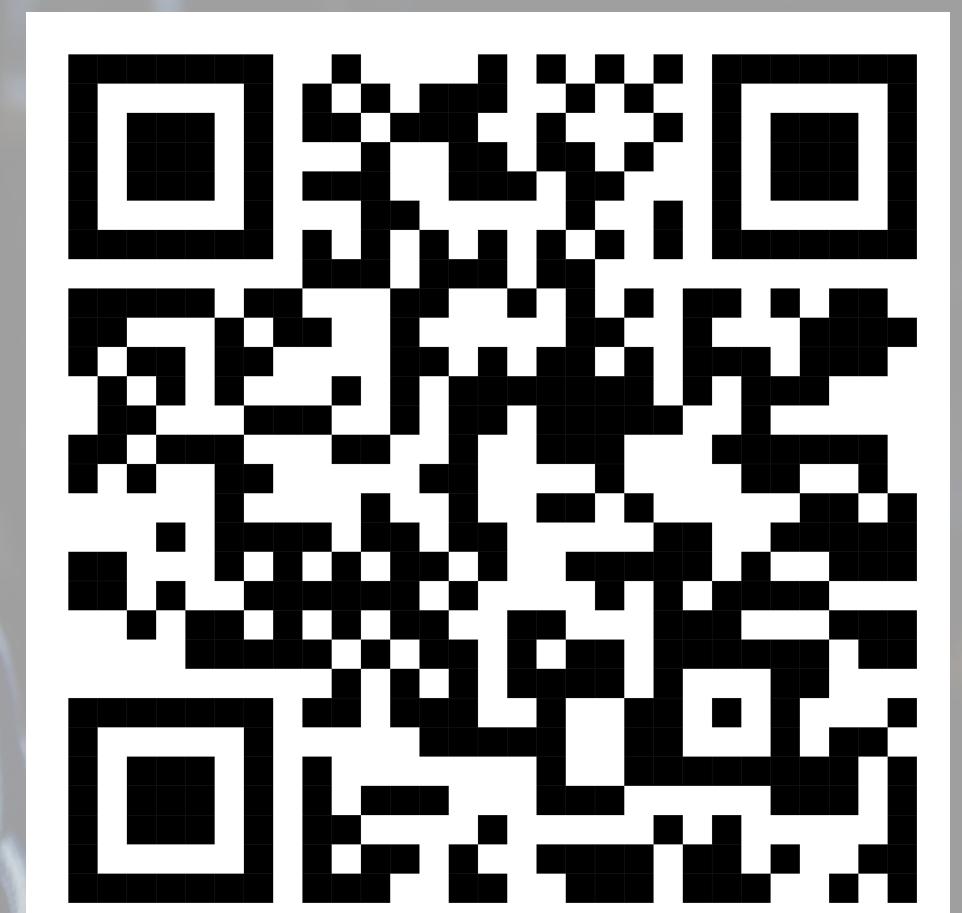
Answer



# SOLUTION

A screenshot of a GitHub repository page for 'elasticsearch-web-search-experiences'. The repository has 13 stars and 13 forks. The 'Code' tab is selected. The 'solution-app' folder is expanded, showing four subfolders: 'hybrid-search', 'rag-extension', and 'simple-text-search', each with a commit message of 'Adding extension task changes' made 52 minutes ago. The commit was made by 'carlyrichmond' with a commit hash of '9df93ff'. The repository also contains .vscode, data, diagrams, lab-sheets, starting-app, .gitignore, LICENSE, and README.md files.

Name	Last commit message	Last commit date
...		
hybrid-search	Adding extension task changes	52 minutes ago
rag-extension	Adding extension task changes	52 minutes ago
simple-text-search	Adding extension task changes	52 minutes ago



Elastic Movie Database

localhost:3000

 elastic Movie Database

Find movie recommendations with Elasticsearch!

What movies do you like?

movies that make me laugh

All  English  French  Japanese  Italian  Spanish  German  Korean  Chinese  Hindi

**Recommend Movies**

 **Featured Review**

If you're a fan of horror-comedies, "Camp Massacre" is a must-see for you. This film follows the crew members of a reality TV show as they visit a notorious backwoods camp where a mass murder took place two decades ago. As they begin filming, strange and hilarious events start to unfold, leaving the audience in stitches.

The humor in this movie is dark and twisted, perfectly blending with the horror elements to deliver a truly unique and entertaining experience. From the over-the-top characters to the outrageous situations they find themselves in, "Camp Massacre" is filled with moments that will have you laughing out loud.

Overall, if you're in the mood for a good laugh and enjoy movies that play with the horror genre, "Camp Massacre" is the perfect pick. It's a campy, fun ride that will have you entertained from start to finish. Grab some popcorn and get ready to chuckle your way through this hilarious horror flick.

**Recommendations**

**Camp Cold Brook**

0/10 EN

Strange events plague crew members of a reality TV show when they visit an infamous backwoods camp that was the site of a mass murder 20 years earlier.

**Tremors: A Cold Day in Hell**

5.6/10 EN

Burt Gummer (Michael Gross) and his son Travis Welker (Jamie Kennedy) find themselves up to their ears in Graboids and Ass-Blasters when they head to Canada to investigate a series of deadly giant-worm attacks. Arriving at a remote research facility in the arctic tundra, Burt begins to suspect that Graboids are secretly being weaponized, but before he can prove his theory, he is sidelined by Graboid venom. With just 48 hours to live, the only hope is to create an antidote from fresh venom — but to do that, someone will have to figure out how to milk a Graboid!

**Cold War**

7.6/10 PL

A man and a woman meet in the ruins of post-war Poland. With vastly different backgrounds and temperaments, they are fatally mismatched and yet drawn to each other.

DANKE !

THANK YOU !

MERCI !

GRAZIE !

GRACIAS !

DANK JE WEL !

