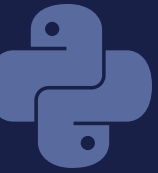
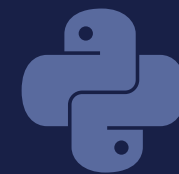
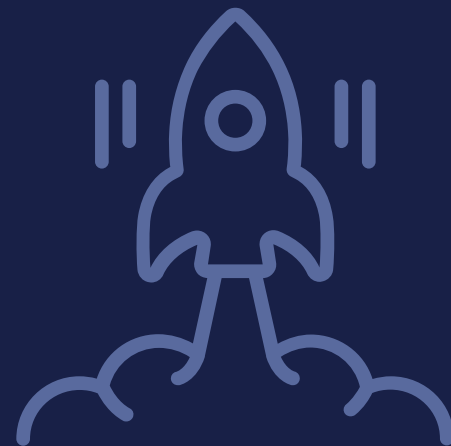
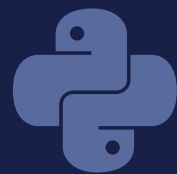




PYTHON HOUR

API Development using Flask



What are APIs?

- Application programming interface or API, is a set of rules that define how applications or devices can connect to and communicate with each other.



Types of API

SOAP APIs

Simple Object Access Protocol.

Websocket APIs

supports two-way communication between client apps and the server

REST APIs

most popular and flexible APIs found on the web today

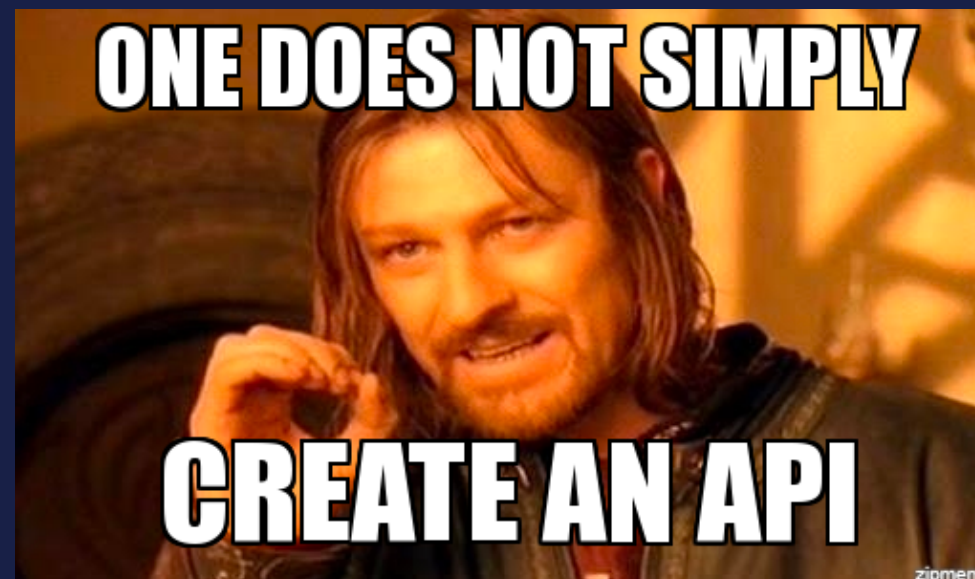


What are REST APIs?

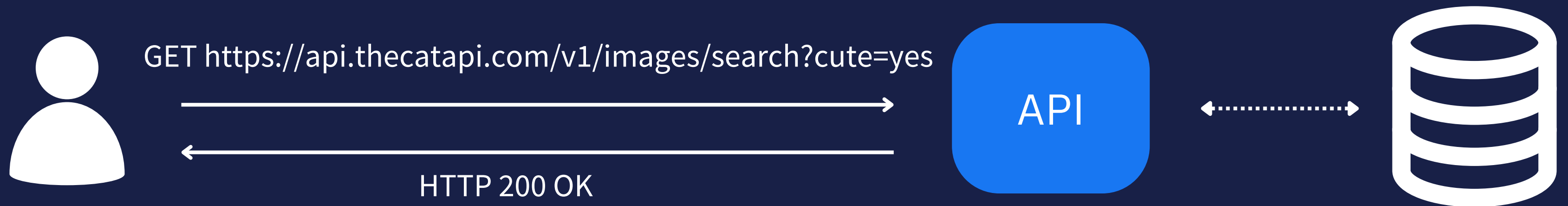
REST Stands for Representational State Transfer

HTTP Methods:
GET, PUT, POST, DELETE ...

Statelessness means that servers do not save client data between requests.



How an API works



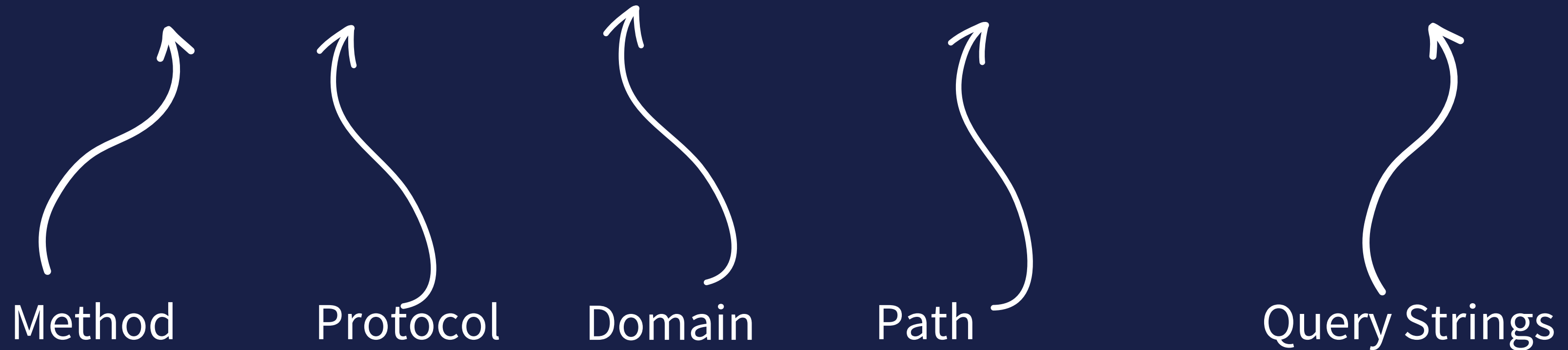
Body:

```
[
  {
    "id": "dgb",
    "url": "https://cdn2.thecatapi.com/images/dgb.jpg",
    "width": 720,
    "height": 514
  }
]
```



Composition of URI

GET https:// api.thecatapi.com /v1/images/search ? cute=yes



API Response

▼ General

Request URL: https://api.thecatapi.com/v1/images/search

Request Method: GET

Status Code: 🟢 200

Remote Address: 74.125.24.121:443

Referrer Policy: strict-origin-when-cross-origin

▼ Response Headers

authenticated: false

cache-control: post-check=0, pre-check=0

content-length: 89

content-type: application/json; charset=utf-8

date: Wed, 19 Oct 2022 15:55:15 GMT

expires: Tue, 03 Jul 2001 06:00:00 GMT

last-modified: Wed Oct 19 2022 15:55:15 GMT+0000 (Coordinated Universal Time)

server: Google Frontend

Status Codes

4XX - Your Problem

5XX - My Problem

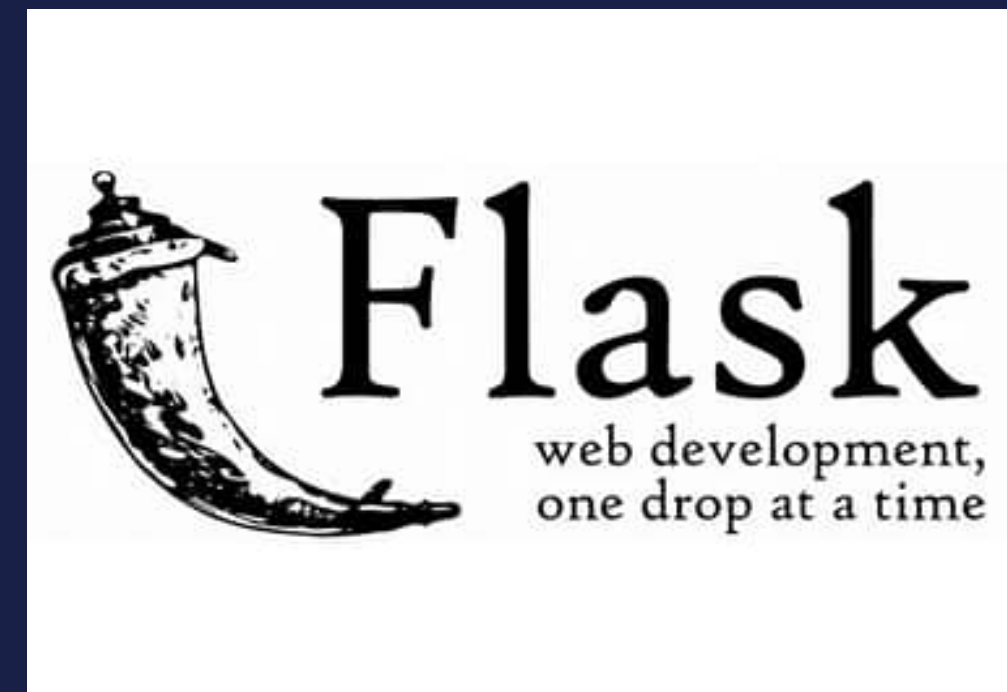
2XX - No Problem



What is Python Flask

Flask is a lightweight WSGI web application framework. It is designed to make getting started quick and easy, with the ability to scale up to complex applications.

- Developed by Armin Ronacher
- Wrapper around Werkzeug and Jinja
- Become one of the most popular Python web application frameworks.



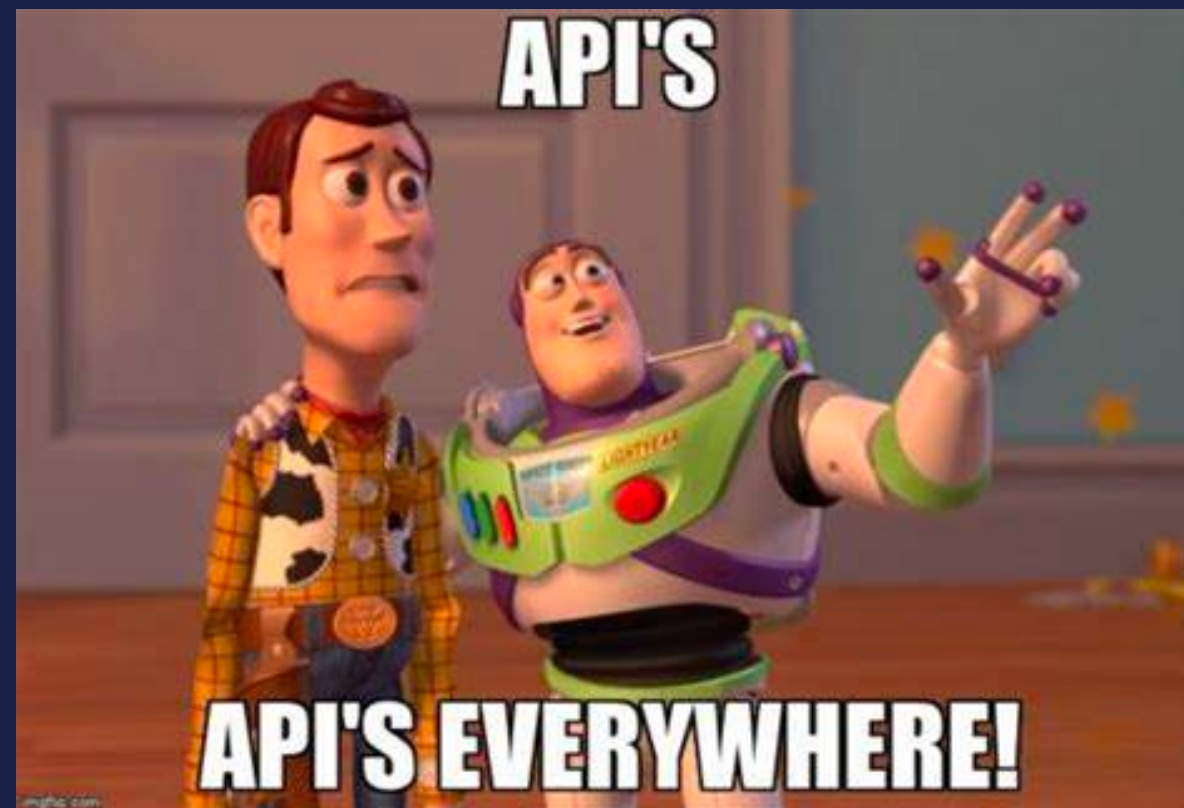
>pip install Flask

Jinja

```
<html>
  <head>
    <title>{{ title }}</title>
  </head>
  <body>
    <h1>Hello {{ username }}</h1>
  </body>
</html>
```

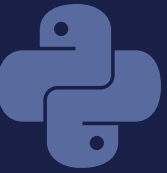
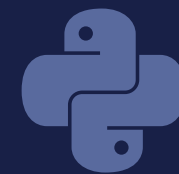
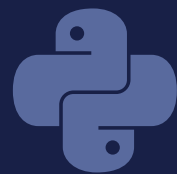
Werkzeug

```
BaseURL
BytesURL
URL
iri_to_uri()
uri_to_iri()
url_decode()
url_decode_stream()
url_encode()
url_encode_stream()
url_fix()
url_join()
url_parse()
url_quote()
url_quote_plus()
url_unparse()
url_unquote()
url_unquote_plus()
```



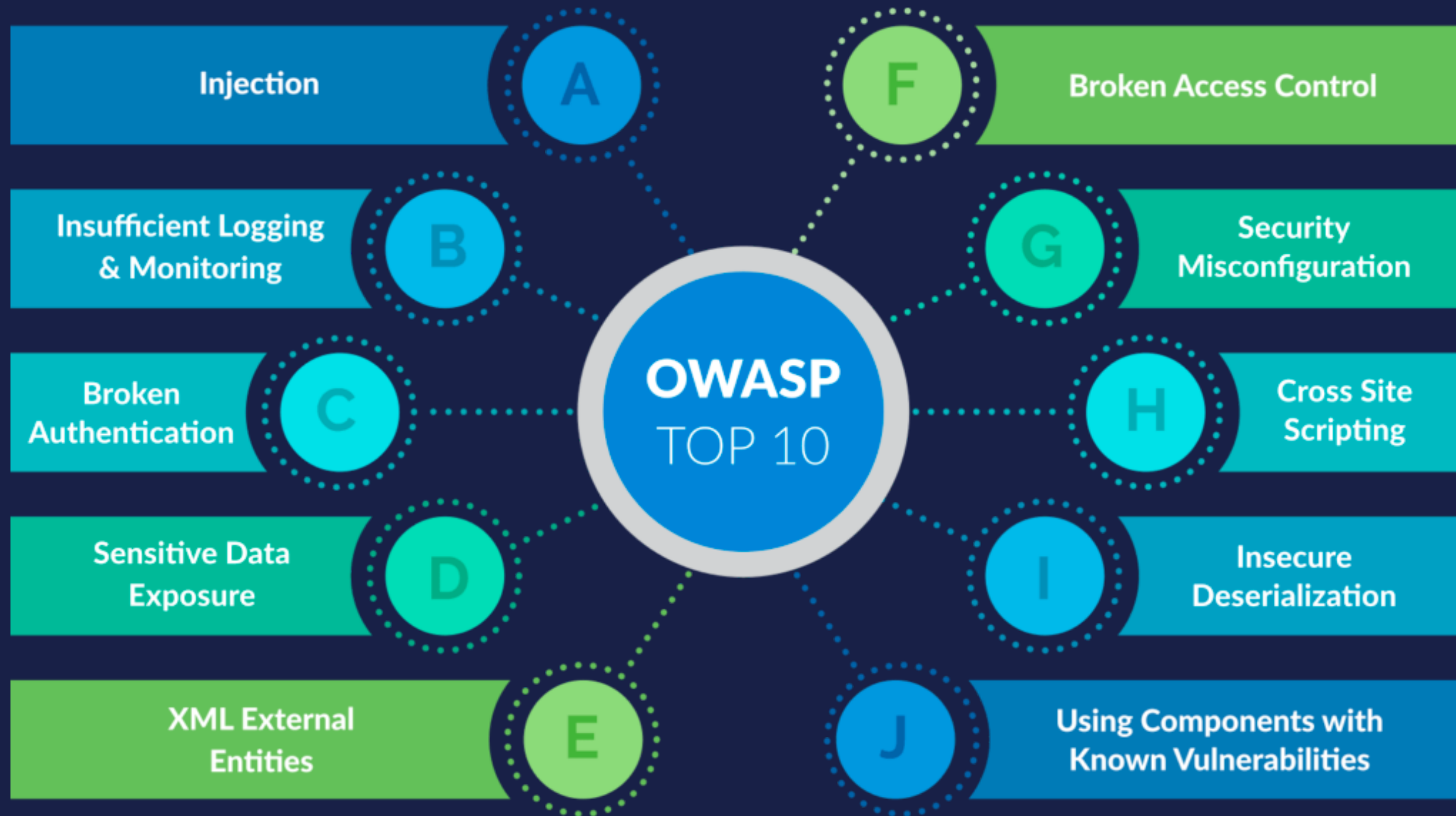


Flask Demo





TOP10



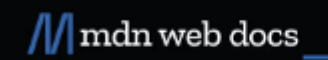
References



What is an API? - API Beginner's Guide - AWS

Find out what is an API, how and why businesses use APIs, and how to use APIs on AWS.

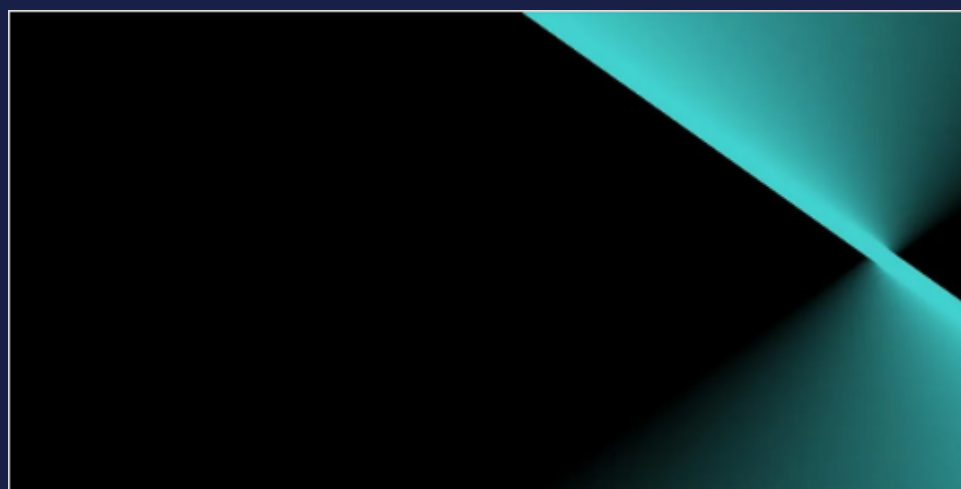
 Amazon Web Services



API - MDN Web Docs Glossary: Definitions of Web-related terms | MDN

An API (Application Programming Interface) is a set of features and rules that exist inside a software program (the application) enabling interaction with it through software -...

 mozilla.org



rest-apis

In this guide, you'll learn how REST APIs, an architectural style for managing networked applications, can ease software development processes.

public-api-lists/public-api-lists



A collective list of free APIs for use in software and web development 🚀 (Clone of <https://github.com/public-apis/public-apis>)

 31 Contributors  8 Issues  6k Stars  377 Forks



public-api-lists/public-api-lists: A collective list of free APIs for use in software and web developme...

A collective list of free APIs for use in software and web development 🚀 (Clone of <https://github.com/public-apis/public-apis>) - GitHub - public-api-lists/public-api-lists: A collective li...

 GitHub



Thank you!
API Development using Flask