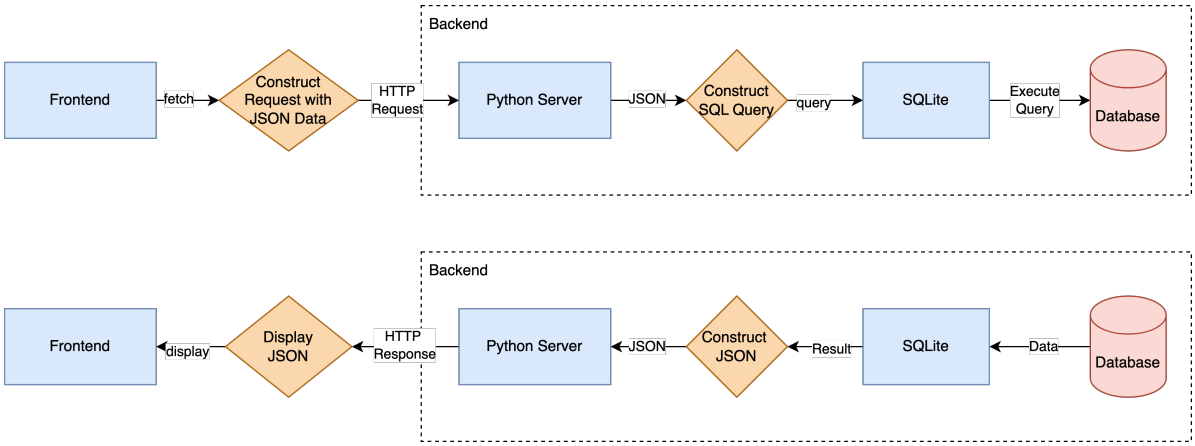
RestAPI



What happens when...

https://github.com/alex/what-happens-when

You enter a URL into a web browser

1. The browser looks up the IP address for the domain name via DNS
2. The browser sends a HTTP request to the server
3. The server sends back a HTTP response
4. The browser begins rendering the HTML
5. The browser sends requests for additional objects embedded in HTML (images, css, JavaScript) and repeats steps 3-5.
6. Once the page is loaded, the browser sends further async requests as needed.

Json

- JSON stands for JavaScript Object Notation
- JSON is often used when data is sent from a server to a web page
- JSON is "self-describing" and easy to understand
- Imagine python dictionaries

API – Application Programming Interface

- Rules that you must follow to communicate with other software systems (possibly over the internet)
- API developers can design APIs using several different architectures.
- APIs that follow the REST architectural style are called REST APIs.
- Web services that implement REST architecture are called RESTful web services.

REST – Representational State Transfer

A certain set of rules on how an API should work.

REST defines the following architectural constraints:

- Stateless: The server won't maintain any state between requests from the client.
- Client-server: The client and server must be decoupled from each other, allowing each to develop independently.
- Cacheable: The data retrieved from the server should be cacheable either by the client or by the server.
- Uniform interface: The server will provide a uniform interface for accessing resources without defining their representation.
- Layered system: The client may access the resources on the server indirectly through other layers such as a proxy or load balancer.
- Code on demand (optional): The server may transfer code to the client that it can run, such as JavaScript for a single-page application.

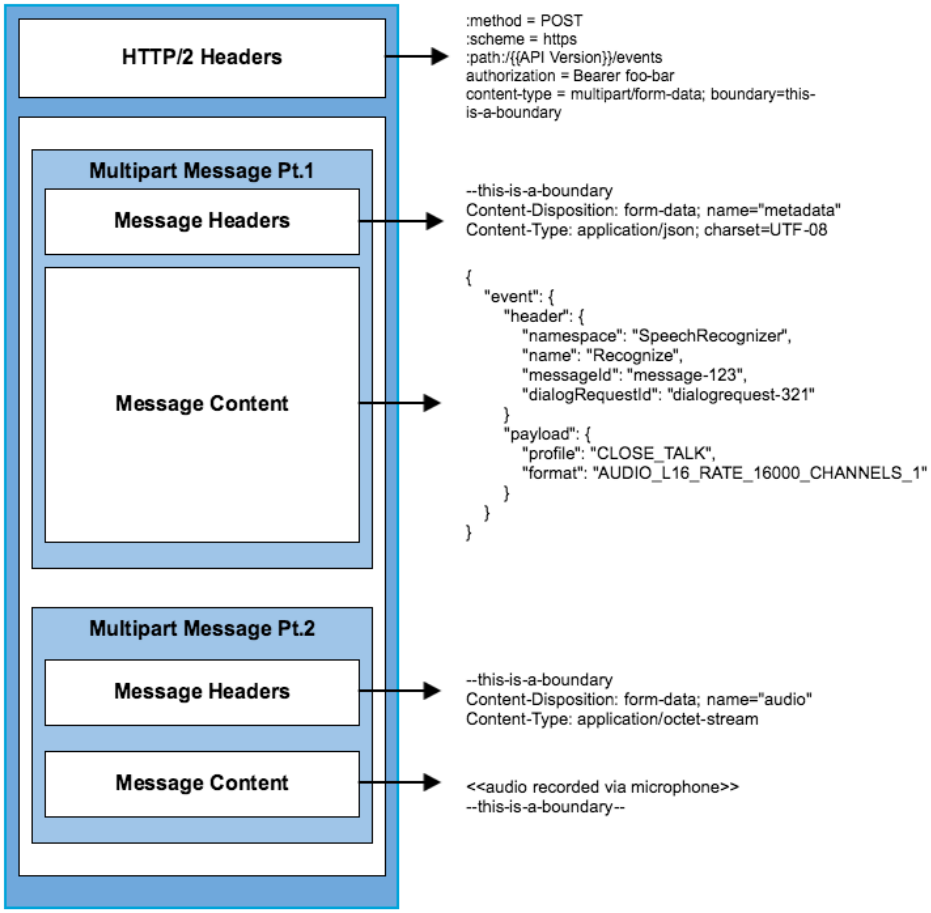
Source

Example: https://api.github.com/users/

Alternatives for REST:

- SOAP
- GraphQL
- RPC

Hypertext Transfer Protocol



Source

You send HTTP Requests, you get back HTTP responses.

Method	Purpose
GET	Retrieve existing data
POST	Add new data
PUT	Update existing data
PATCH	Partially update existing data
DELETE	Delete data

HTTP Errors

Status	Message
404	The URL you asked is not found
503	Unavailable right now
403	The server understands the request but refuses to authorize it
200	Everything went perfect
400	Something is wrong on the request params
anything else	anything

Read more: https://www.restapitutorial.com/httpstatuscodes.html