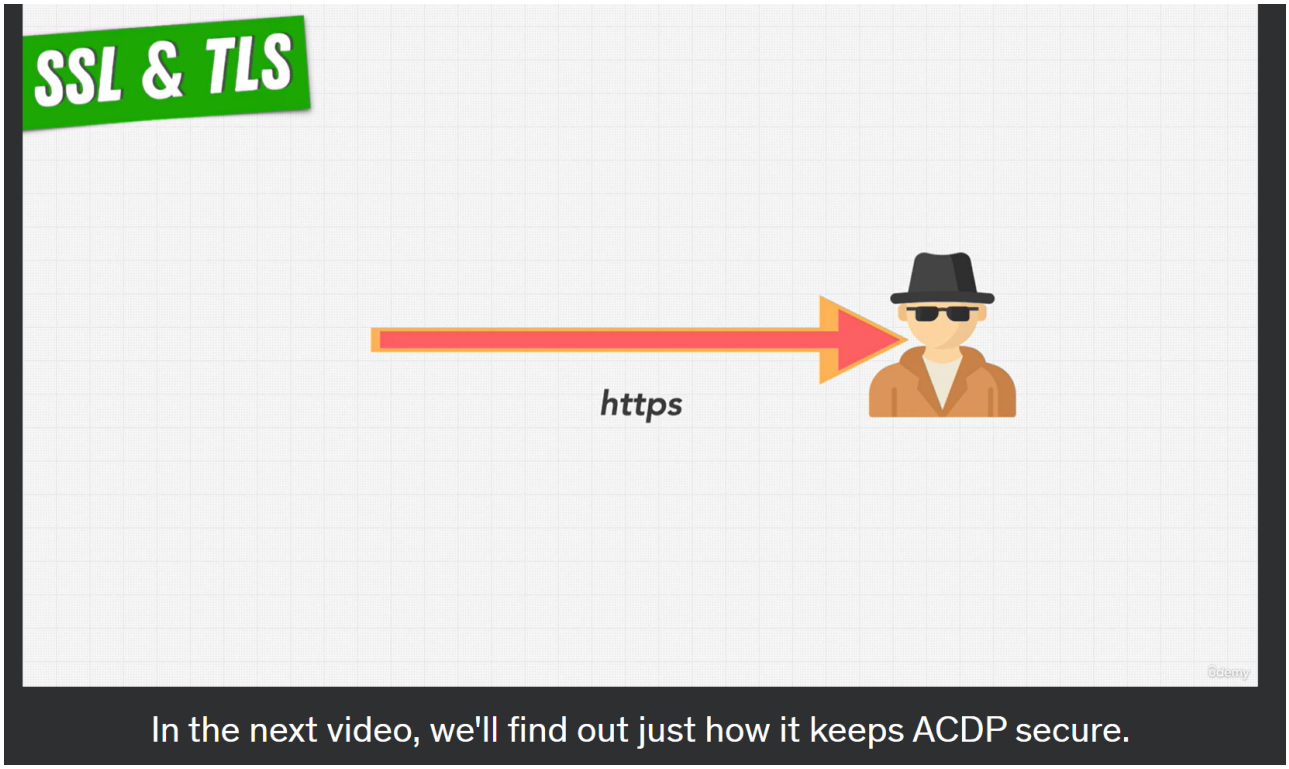
# Fundamentals Node Security + Authentication

1. tls last version of the ssl


2. wrapping request tls encrypting



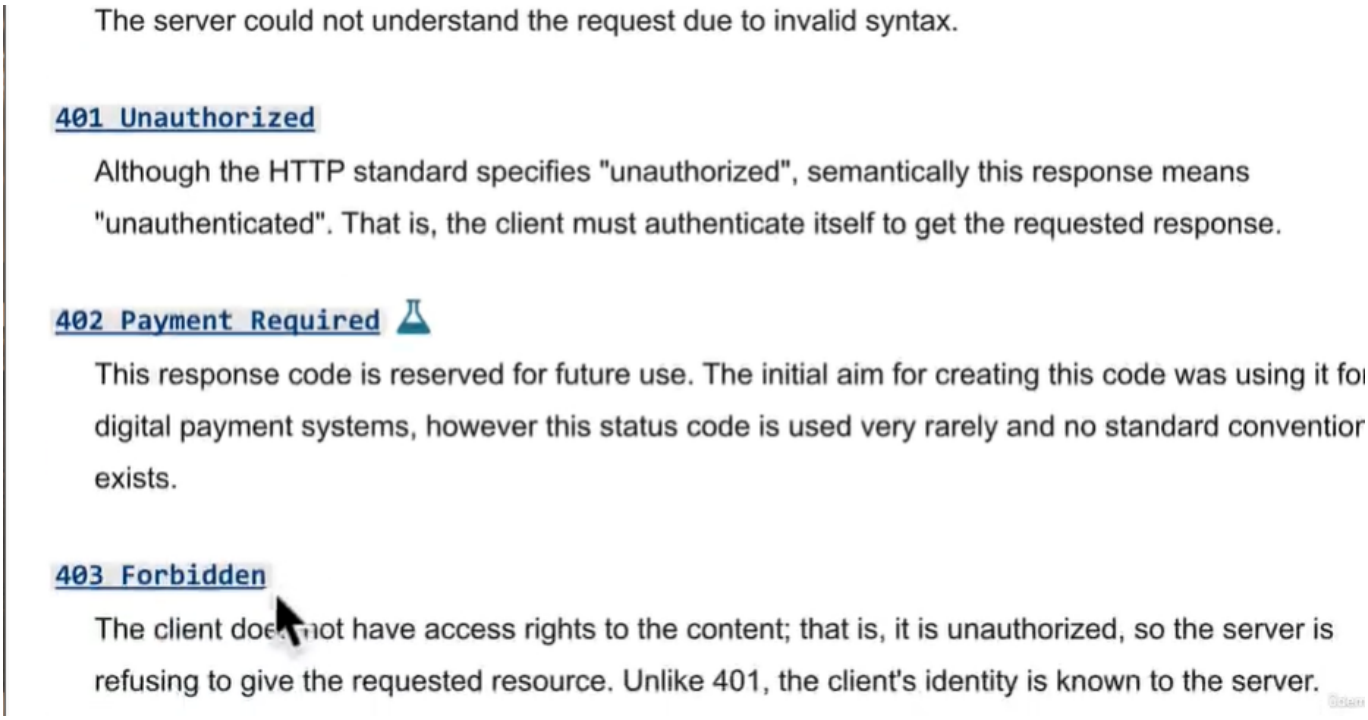

3. If need created ssl or tls certificate

## Authentication

when need now who this user

## Authorization

checks whether that user has permission to access a specific resource once they've been authenticated access control




404 permission 401 authenticate

## Api key

It's a string

passing as either a query parameter or as a header in http request

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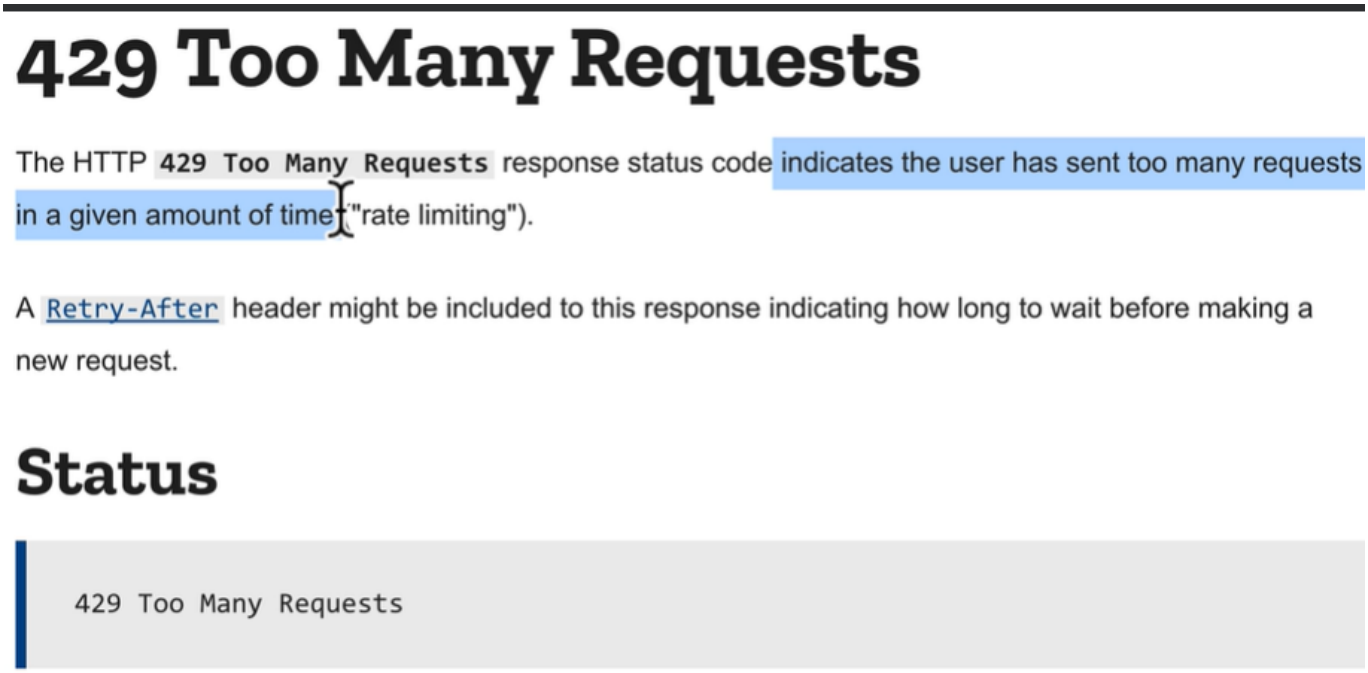


goole maps

## Adding the API key to your request

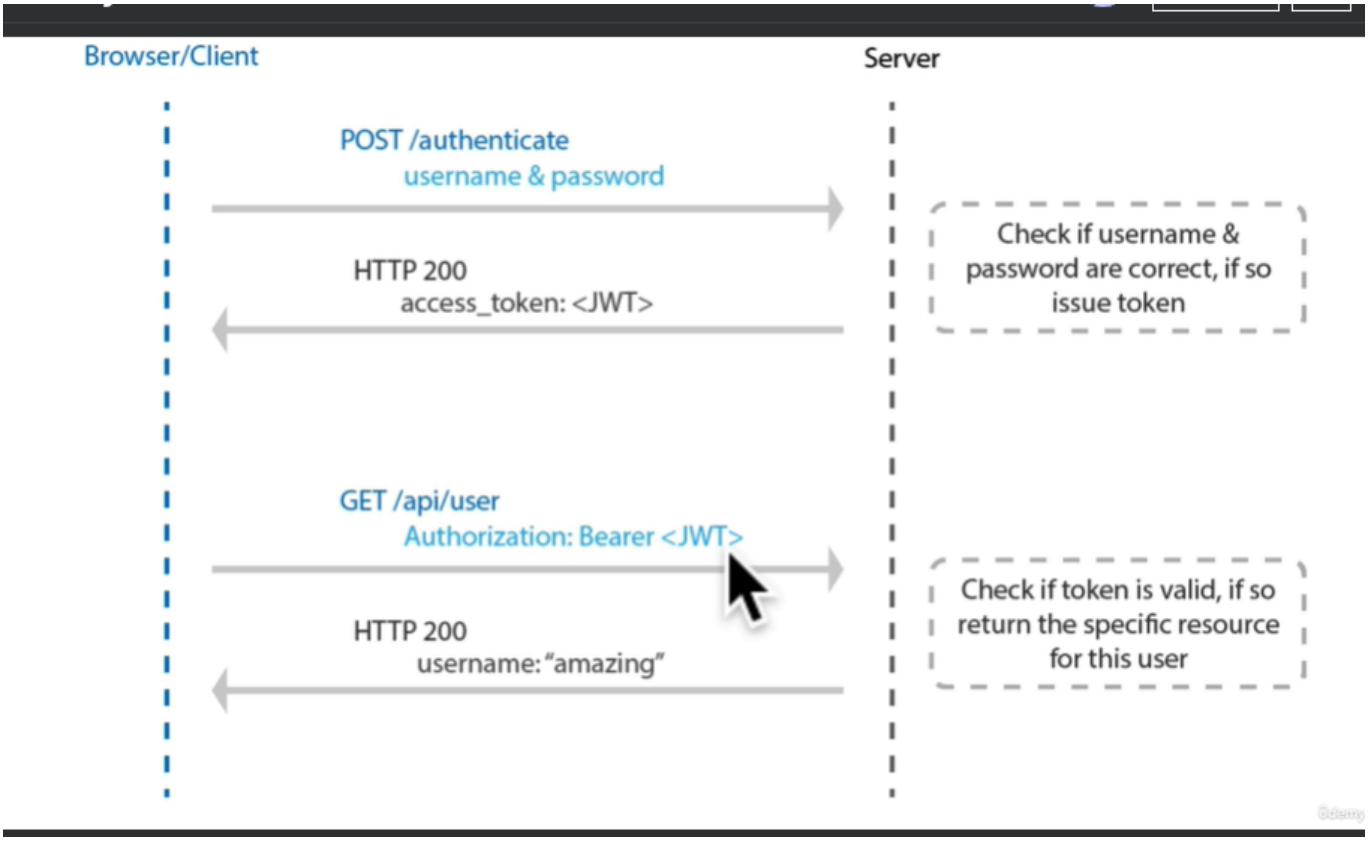
You must include an API key with every Maps JavaScript API request. In the following example, replace `YOUR_API_KEY` with your API key.

```
<script async defer src="https://maps.googleapis.com/maps/api/?key=YOUR_API_KEY&callback=initM
type="text/javascript"></script>
```

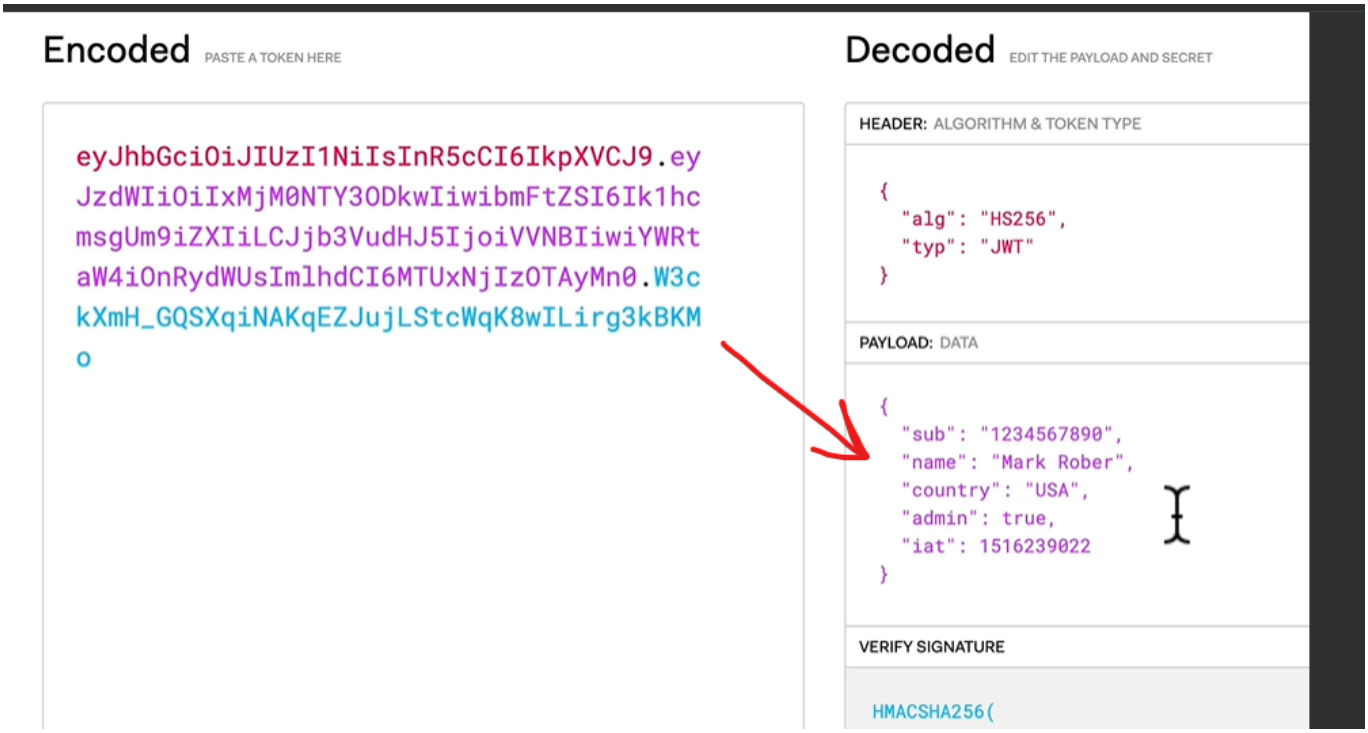
HTTPS is required for requests that use an API key, and recommended for requests that use a client ID. HTTPS is also required for applications that include sensitive user data - such as a user's location - in requests.

# JSON Web token

two types JWT || Opaque tokes



JWT encoded information




split to three part header -> alg (HS256) and type payload -> signature ->

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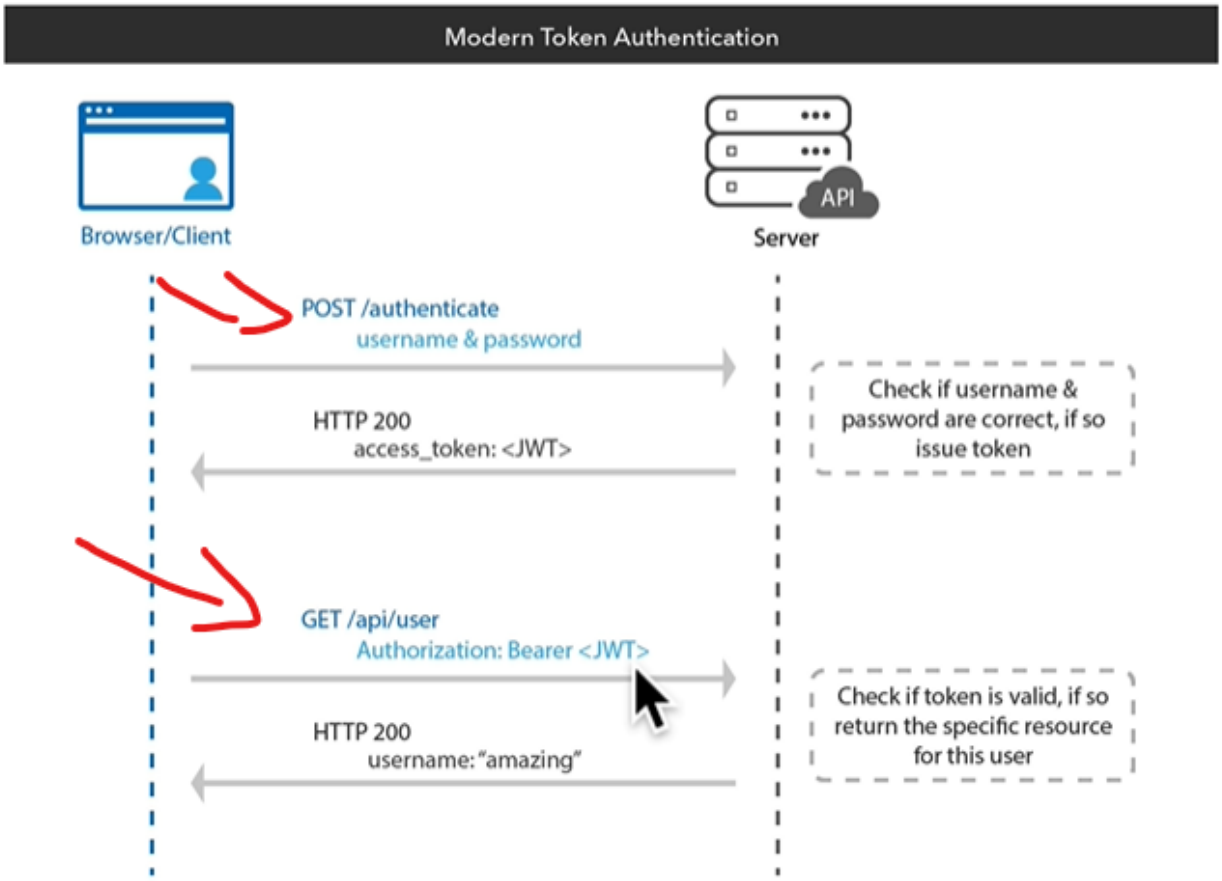


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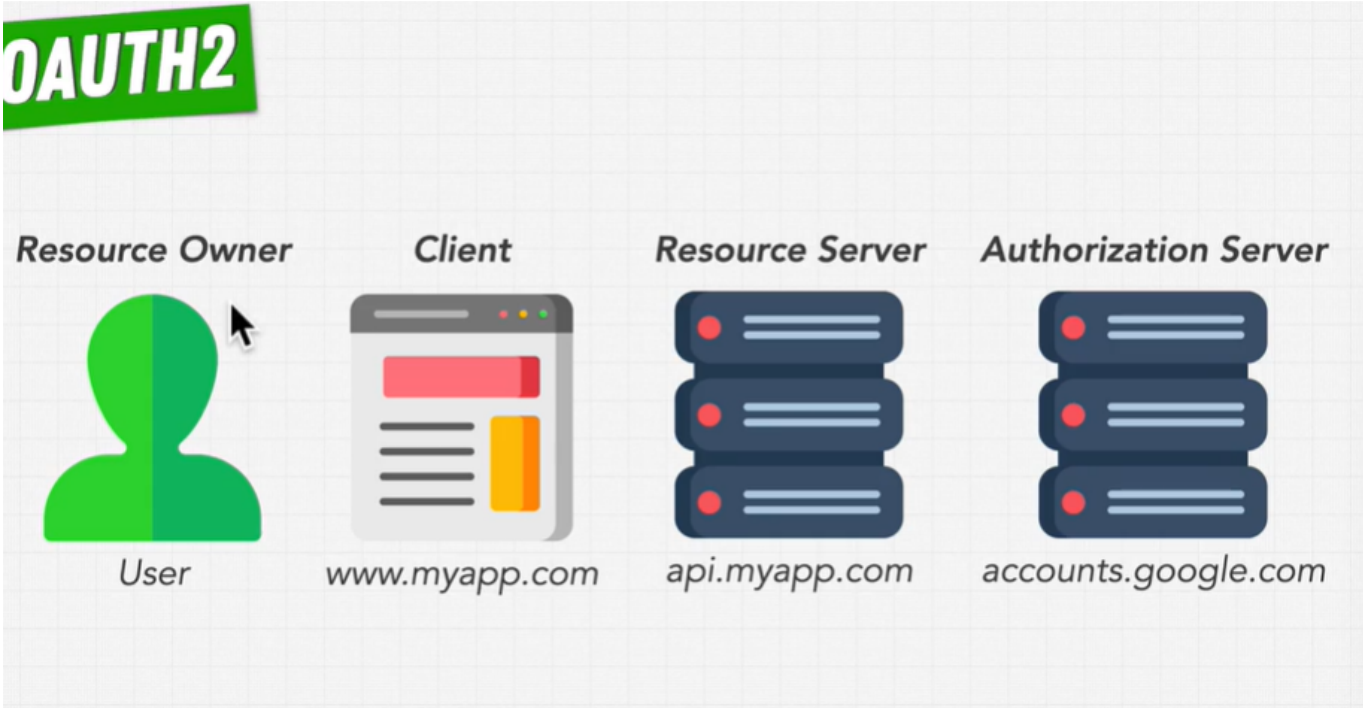
data that's constantly being passed around from client to the server.

## The OAUTH 2.0 authentication standard

resource owner -> user client -> my website resource server -> your backend in your application
Authorization server -> goole service

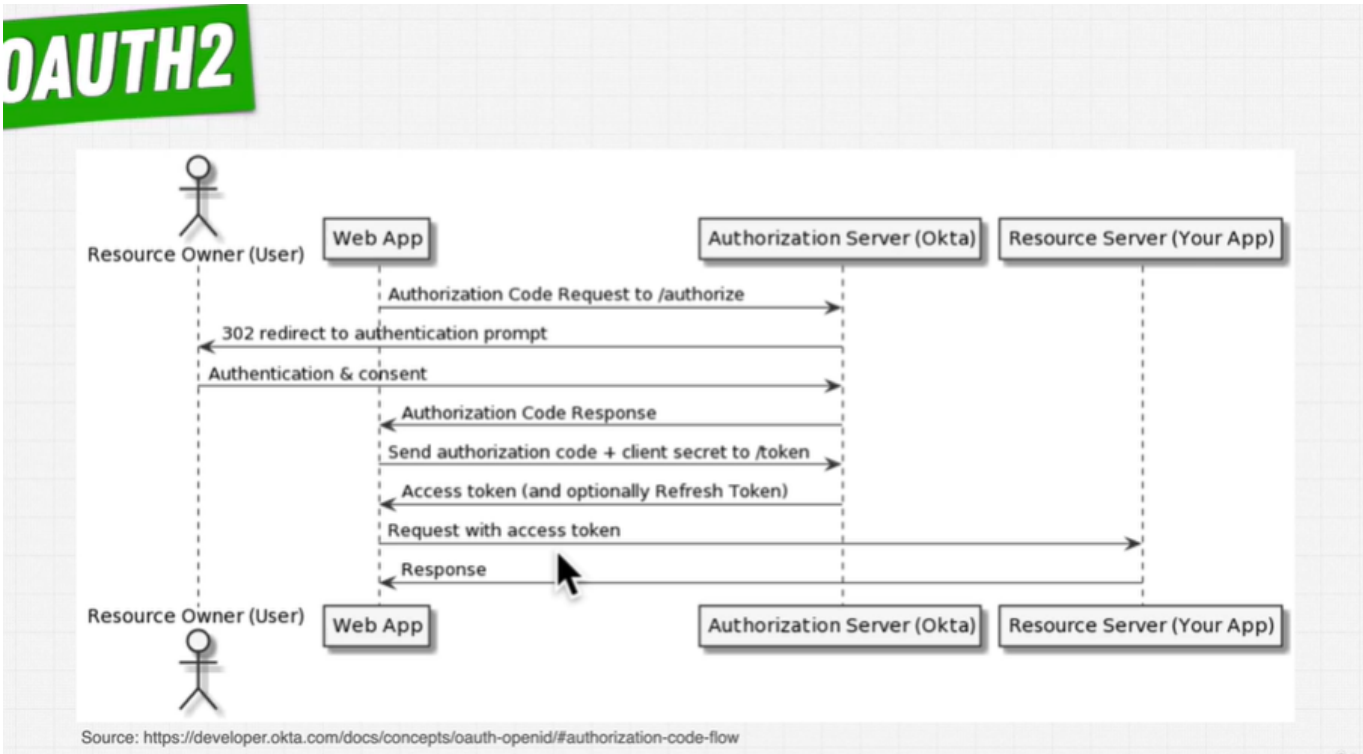



1. has difference flows

The table shows you which OAuth 2.0 flow to use for the type of application that you are building.

| Type of Application | OAuth 2.0 flow |
|---|---|
| Server-side (AKA Web) | Authorization Code flow |
| Single-Page Application | Authorization Code flow with PKCE or Implicit flow when the SPA that you are building runs in older browsers that don't support Web Crypto for PKCE |
| Native | Authorization Code flow with PKCE |
| Trusted | Resource Owner Password flow |

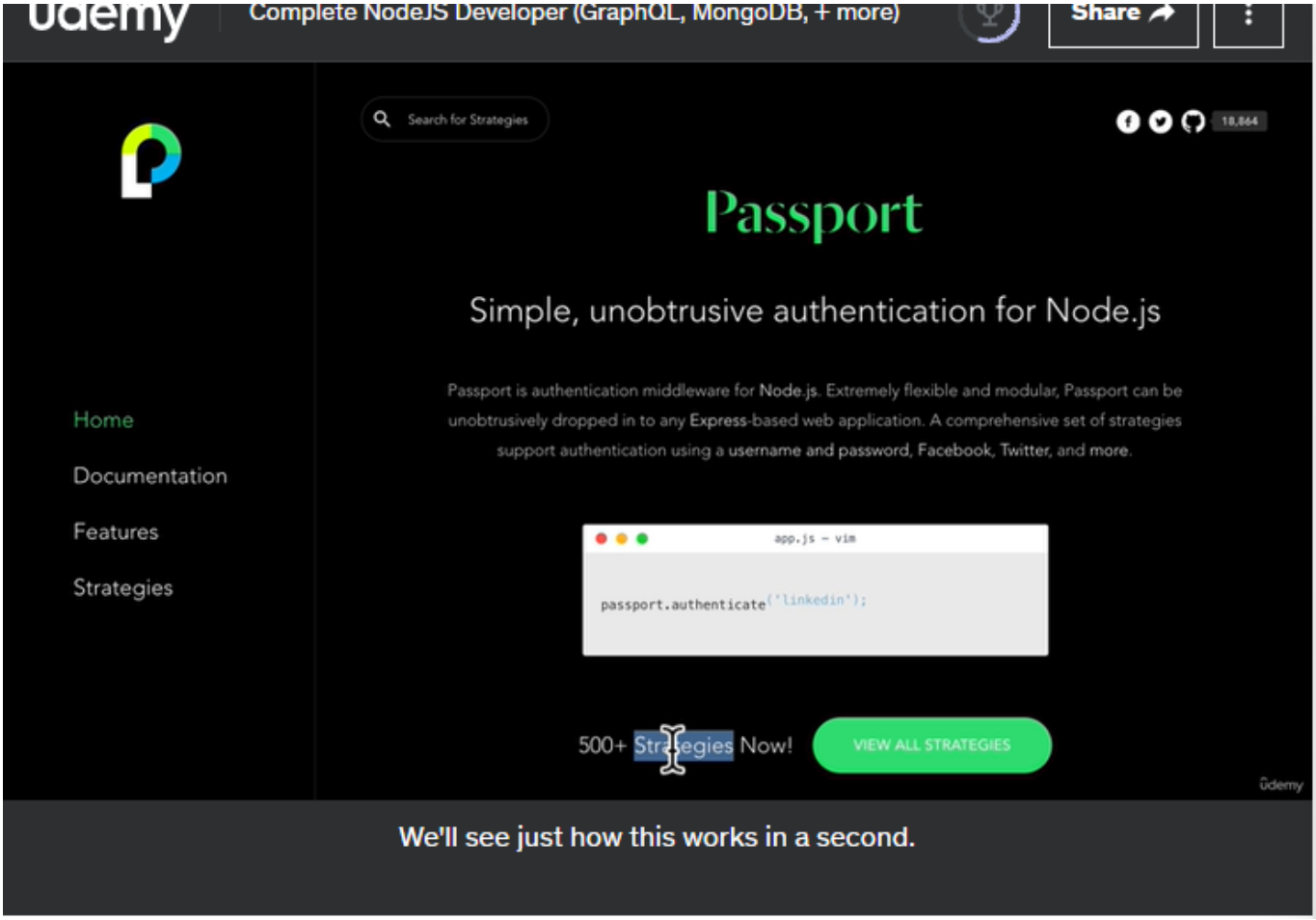
Server-side (AKA web)




## White passport

https://www.passportjs.org/

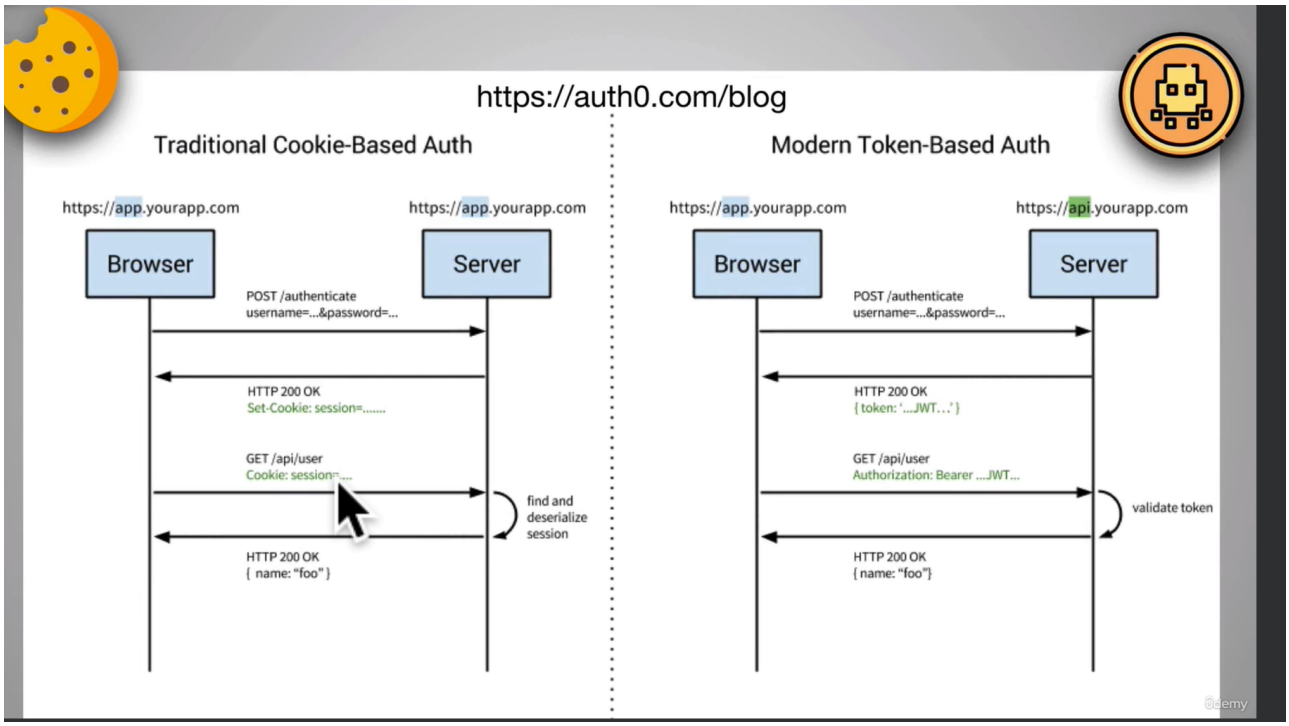
https://www.passportjs.org/packages/passport-google-oauth20/




Provide authenticate for node

# Cookies

1. string of data storing in our browser




Two type of using cookies

1. stateful cookies 1.1 store session in DB and send to client only reference (changes when a lot of users )
   1.2 if need keep in our session in a secret
2. stateless cookies 2.1 all the session data lives in the client

size cookies limited about 40 kilobytes

# Session

1. Are a way of storing data about the current active user.

Storing session data:

1. Server side session -> where user data lives in the server
2. client side session -> when user data lives in the site (cookies)