



Authentication in Angular

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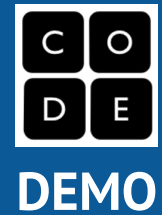


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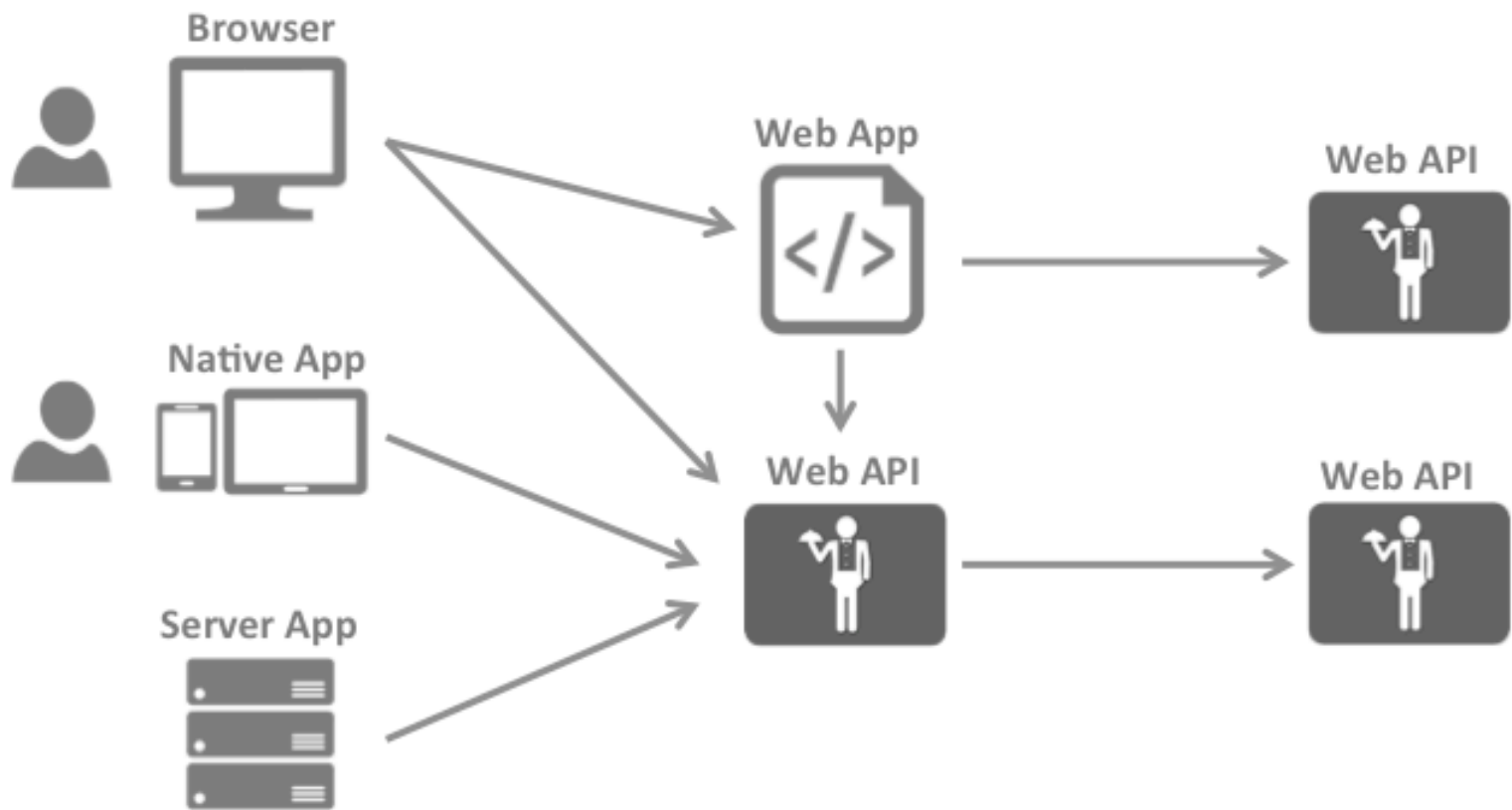
JavaScript Walkthrough



Modern Applications



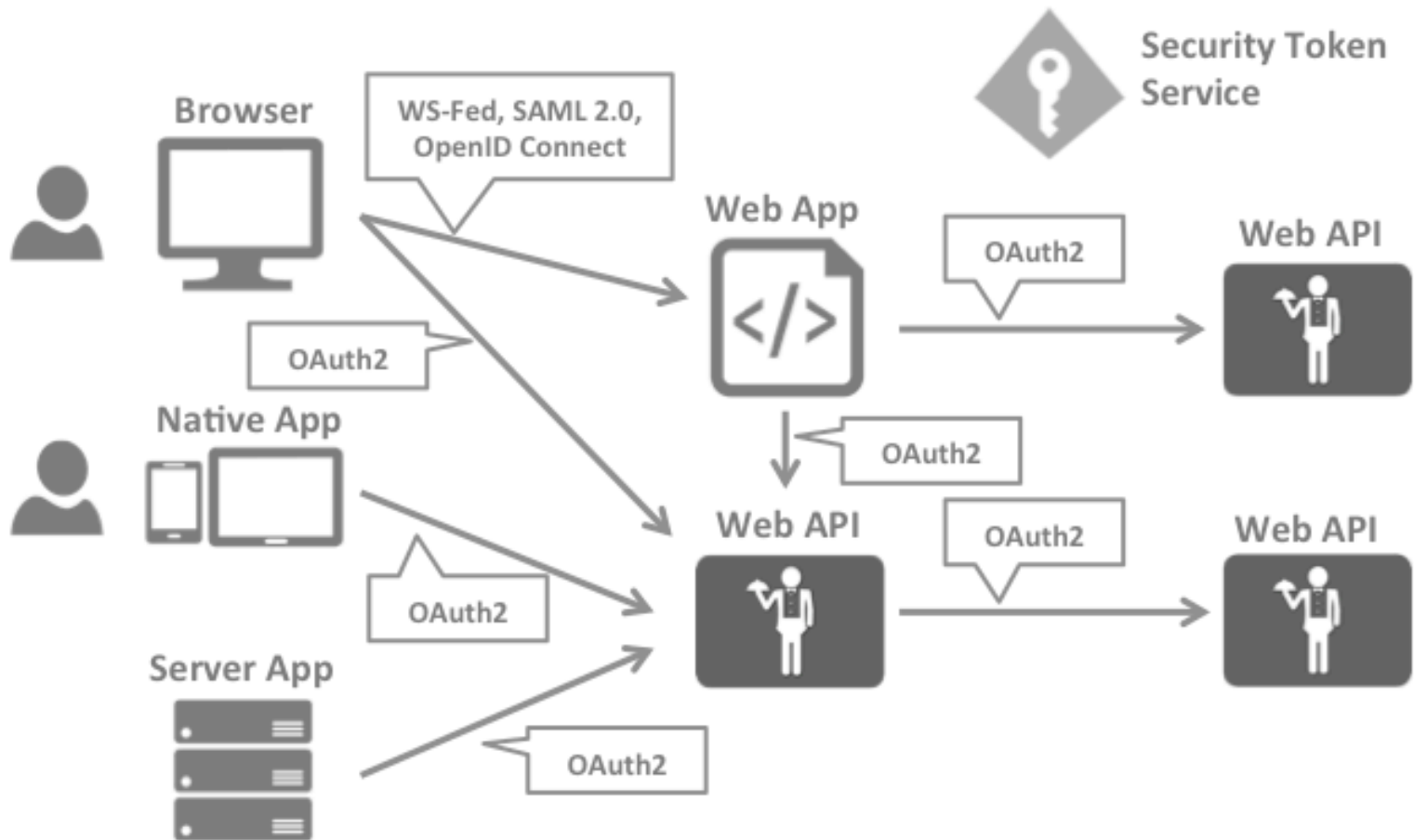
The Big Picture



- <https://identityserver.github.io/Documentation/docsv2/overview/bigPicture.html>



Security Protocols



- <https://identityserver.github.io/Documentation/docsv2/overview/bigPicture.html>



Security Assertion Markup Language



- Most popular & widely deployed
- SAML 1.0 – November 2002
- SAML 1.1 – September 2003
- SAML 2.0 – March 2005
- Browser single sign-on (SSO)
- Problematic beyond intranet
- XML-based
- “Enterprisey” and “not trivial”



OpenID Connect



- Newest but generally considered to be the future
- OpenID – May 2005
- OpenID 2.0 – December 2007
- OIDC [3.0] – February 2014
- Designed to be more usable by native and mobile applications
- RESTful HTTP API using JSON
- Authentication layer on top of the OAuth 2.0 authorization framework
- Uses the JSON Web Token (JWT) and JSON Object Signing and Encryption (JOSE) specs



OpenID Connect



OpenID Connect

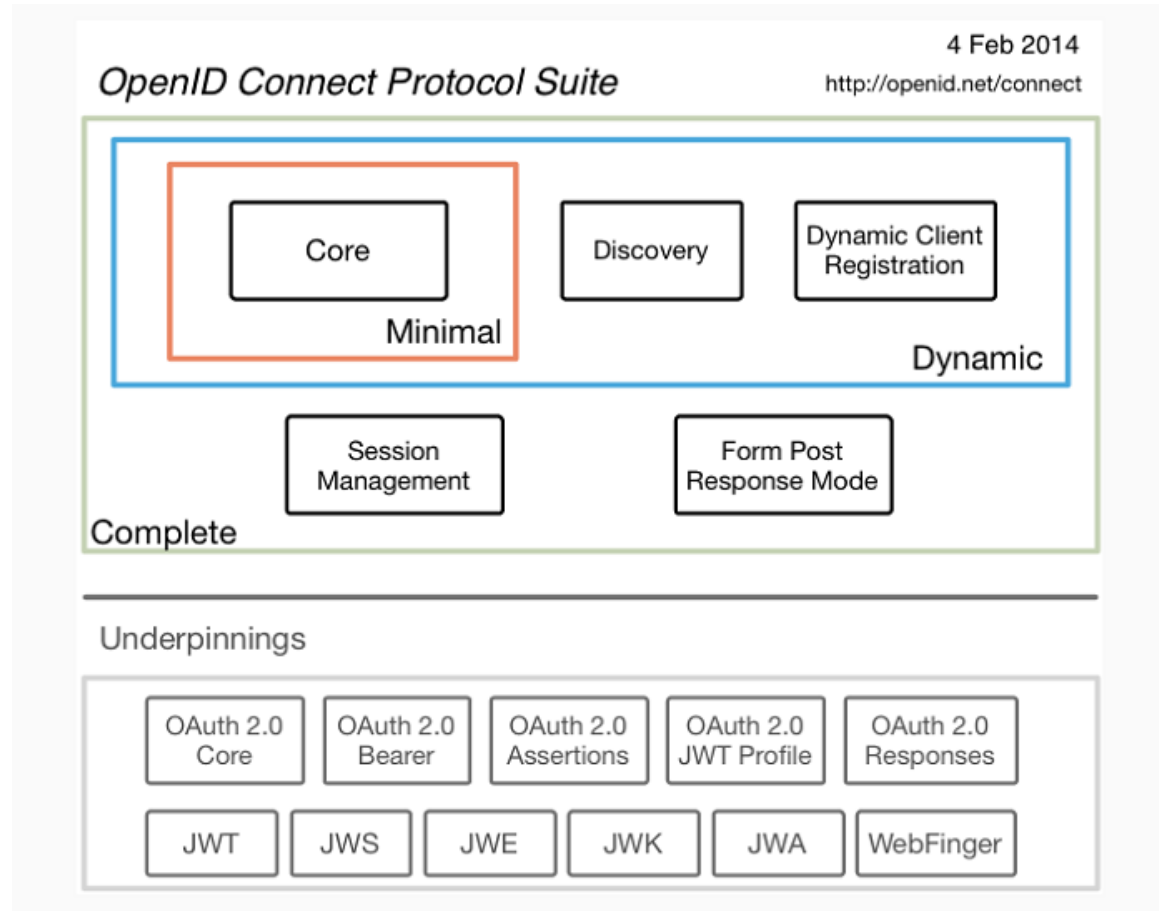


“OpenID Connect 1.0 is a simple identity layer on top of the OAuth 2.0 protocol.”

- Defines identity tokens
- Defines standard token type
- Defines standard cryptography
- Defines validation procedures
- Defines flows for browser, native, and server-based apps
- Combines authentication with short/long-lived delegated API access



OpenID Connect



- <http://openid.net/connect/>



Endpoints

**Authorize
Endpoint**



**Token
Endpoint**



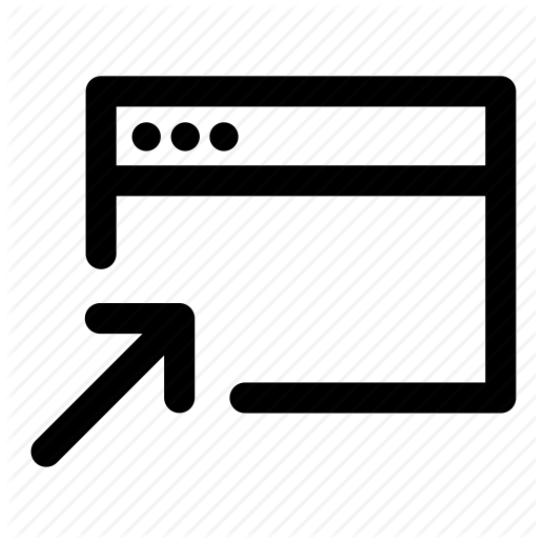
**UserInfo
Endpoint**



Flows

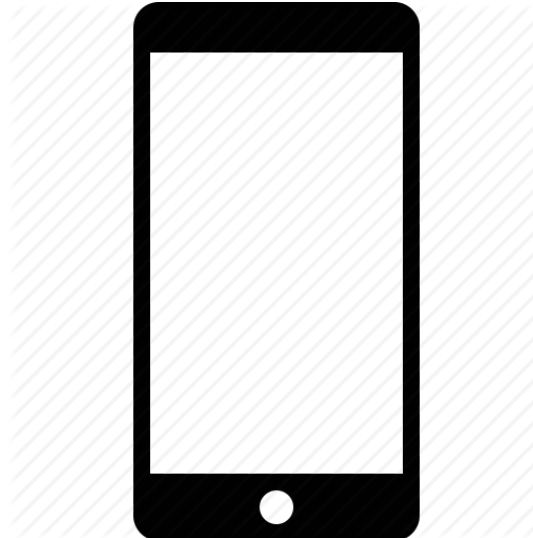
Implicit Flow

(Browser-based)



Hybrid Flow

(Native/Mobile)



Client Credentials Flow

(Server-to-Server/IoT)



Implicit Flow

GET /authorize

?**client_id**=app1

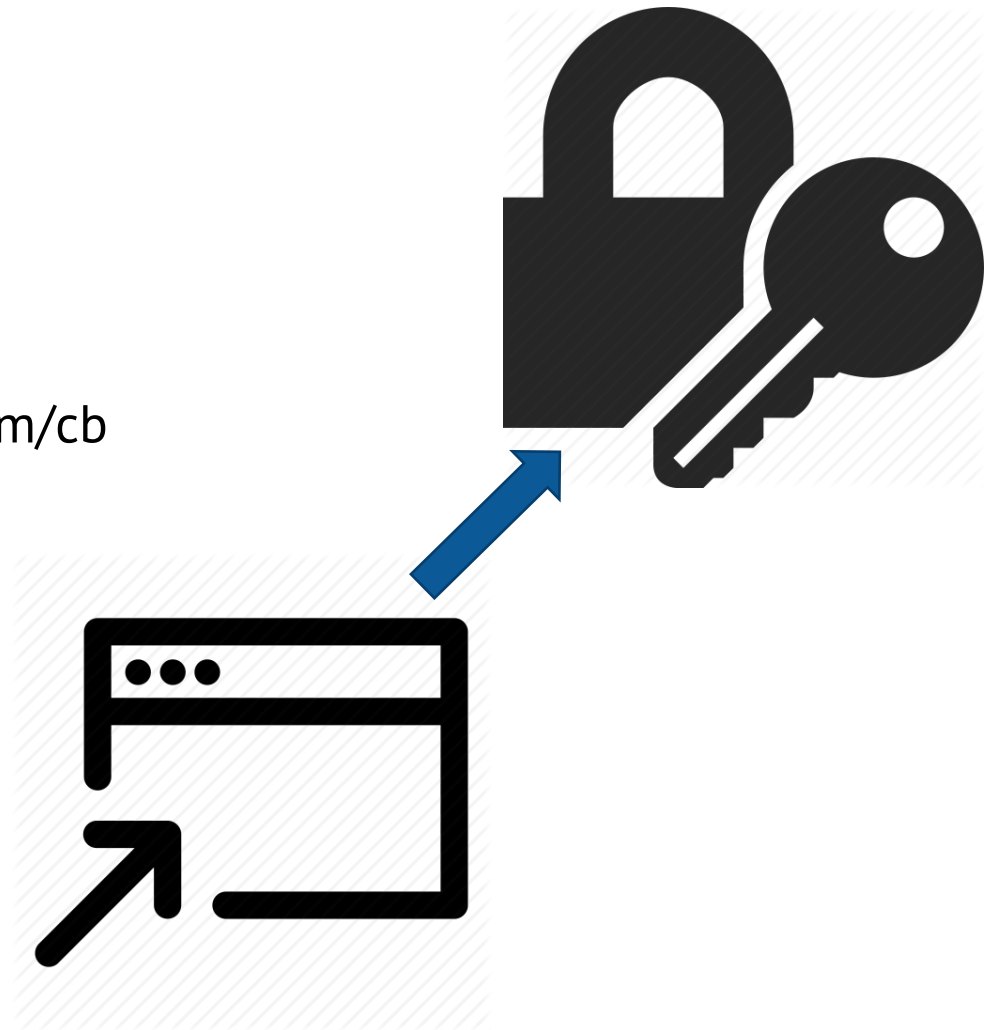
&**redirect_uri**=https://app.com/cb

&**response_type**=id_token

&**response_mode**=form_post

&**nonce**=a1b...x9z

&**scope**=openid email api1



Implicit Flow Response

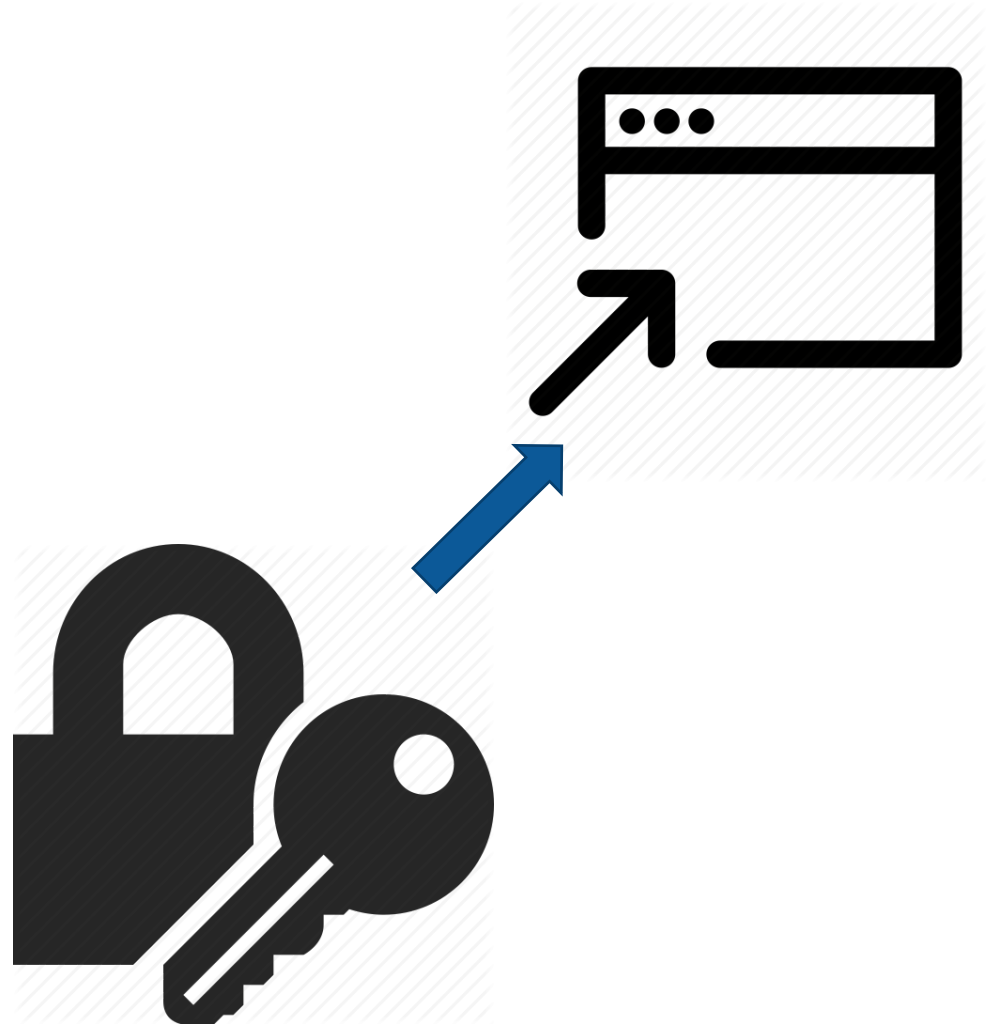
POST /callback

<form>

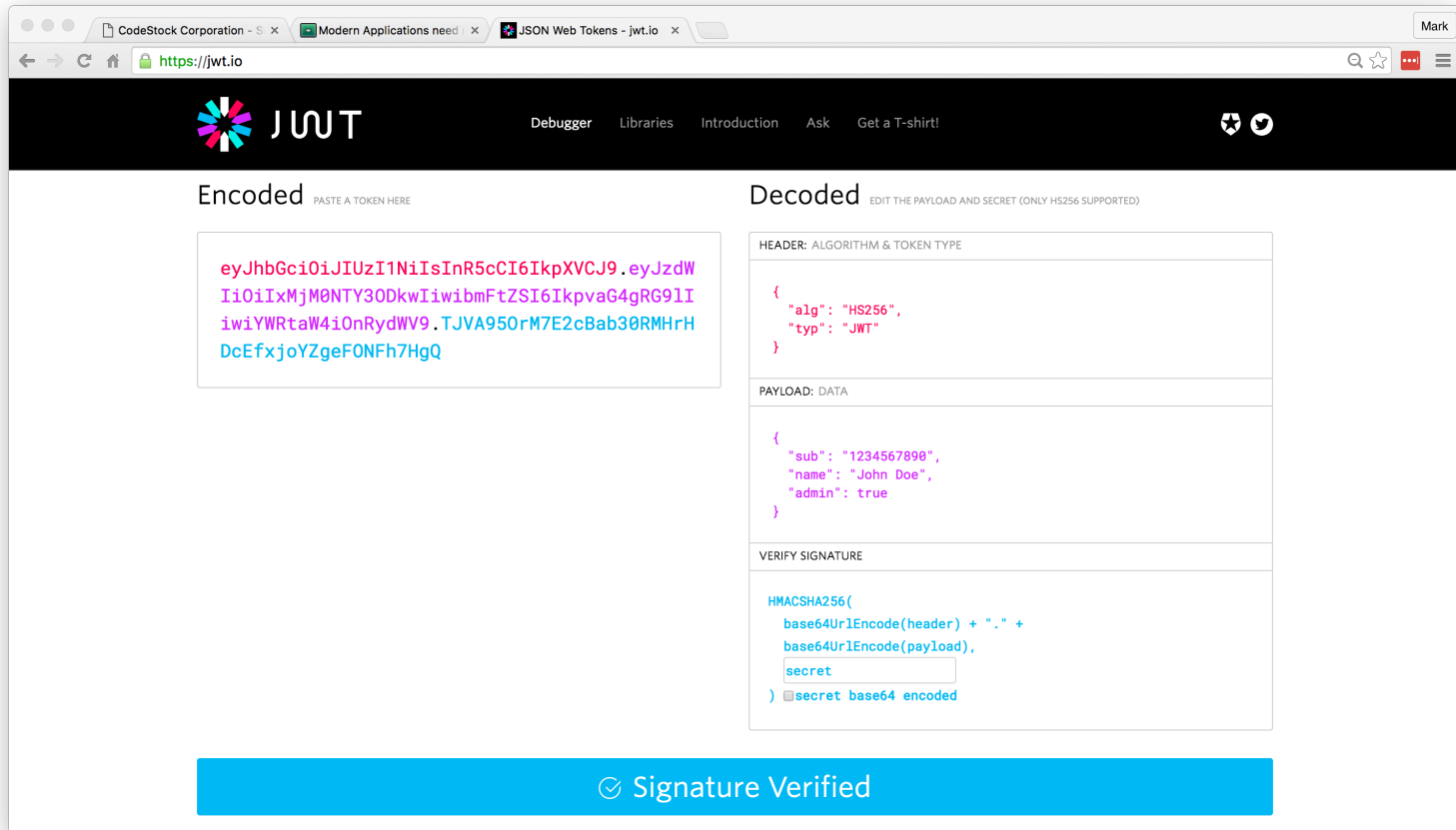
<input type="hidden"
name="id_token"
value="a1c...x9z" />

<input type="hidden"
name="access_token"
value="z9x...c1a" />

</form>



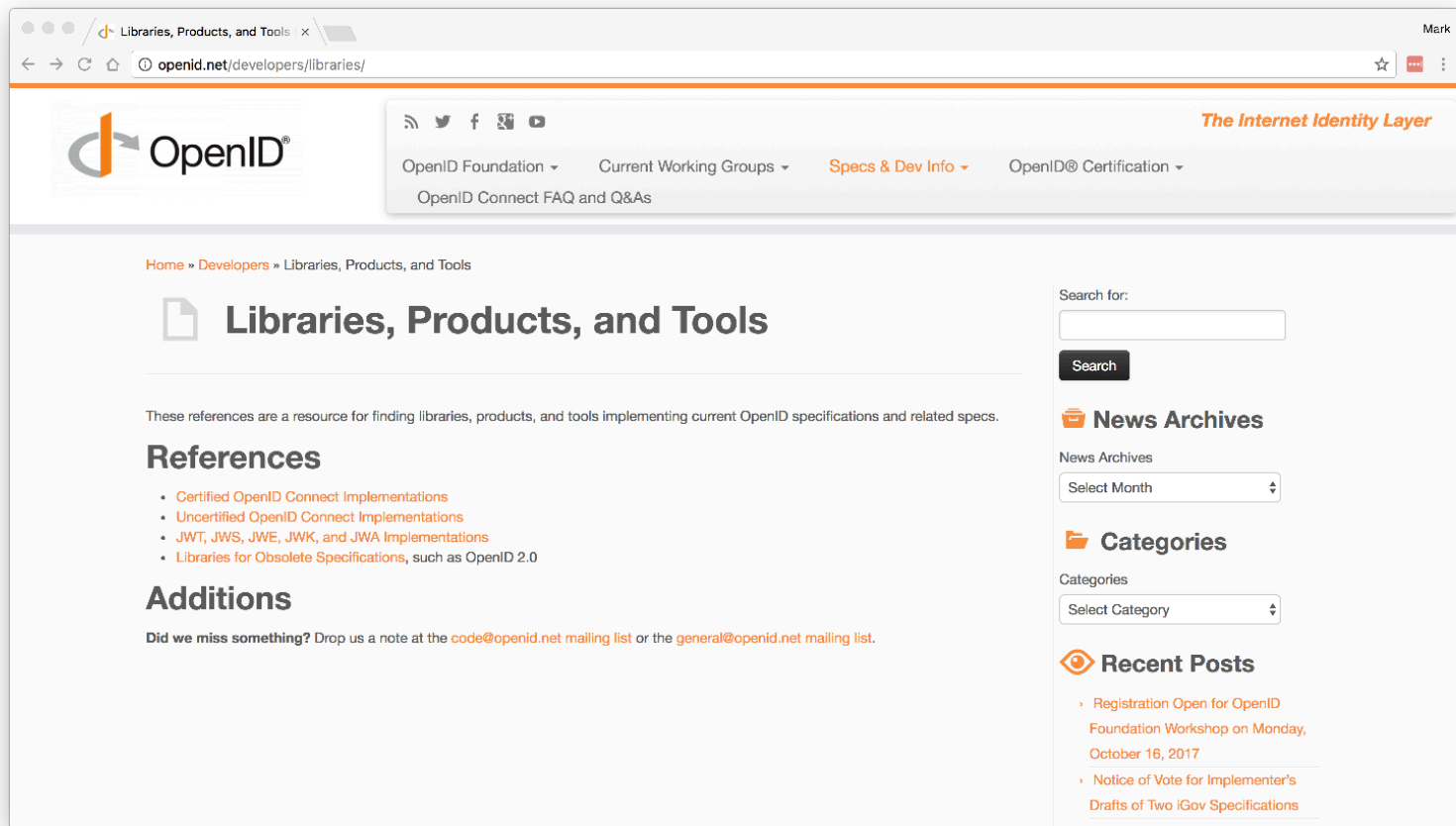
Identity Token



- <https://jwt.io/>



Libraries, Products, and Tools



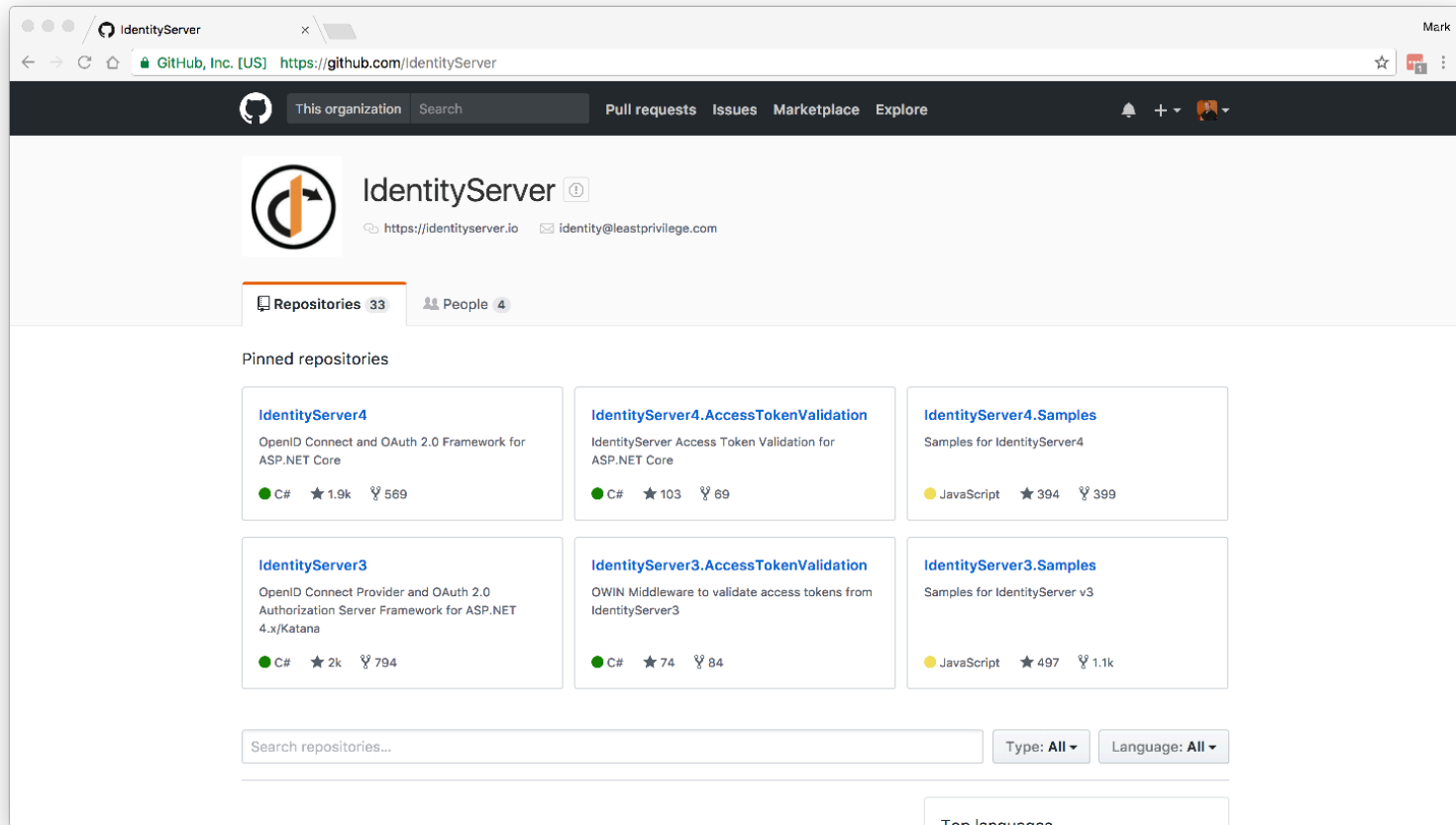
- <http://openid.net/developers/libraries/>



IdentityServer + oidc-client



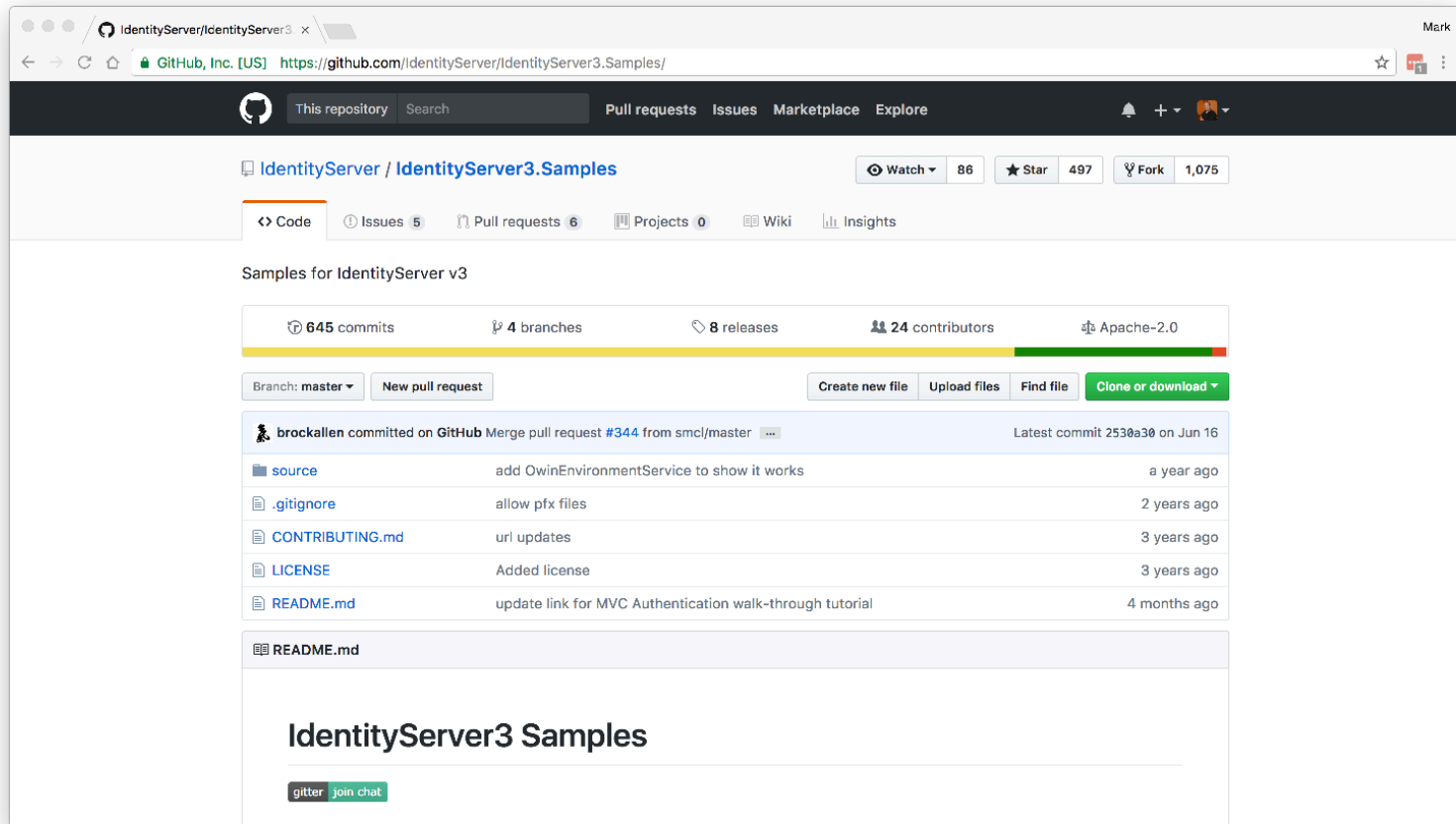
IdentityServer



- <https://github.com/IdentityServer>



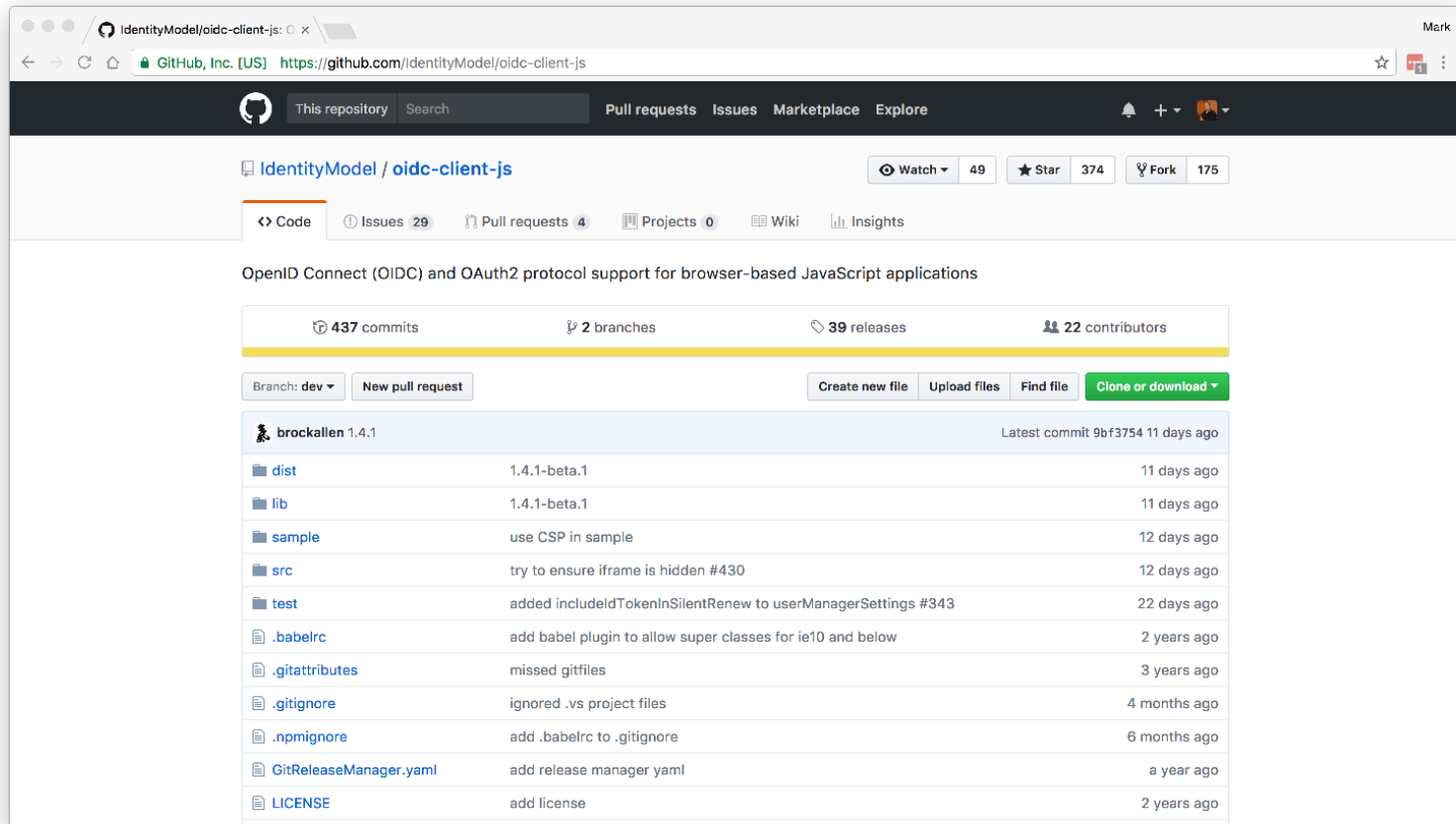
Samples



- <https://github.com/IdentityServer/IdentityServer3.Samples/>



oidc-client



IdentityModel / oidc-client-js

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OpenID Connect (OIDC) and OAuth2 protocol support for browser-based JavaScript applications

437 commits 2 branches 39 releases 22 contributors

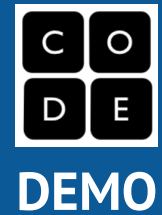
Branch: dev New pull request Create new file Upload files Find file Clone or download

brockallen 1.4.1 Latest commit 9bf3754 11 days ago		
dist	1.4.1-beta.1	11 days ago
lib	1.4.1-beta.1	11 days ago
sample	use CSP in sample	12 days ago
src	try to ensure iframe is hidden #430	12 days ago
test	added includeIdTokenInSilentRenew to userManagerSettings #343	22 days ago
.babelrc	add babel plugin to allow super classes for ie10 and below	2 years ago
.gitattributes	missed gitfiles	3 years ago
.gitignore	ignored .vs project files	4 months ago
.npmignore	add .babelrc to .gitignore	6 months ago
GitReleaseManager.yaml	add release manager yaml	a year ago
LICENSE	add license	2 years ago

- <https://github.com/IdentityModel/oidc-client-js>



Authentication in Angular



Resources

- OpenID Connect:
<http://openid.net/connect/>
- OpenID Connect Libraries:
<http://openid.net/developers/libraries/>
- IdentityServer:
<https://github.com/IdentityServer>
- IdentityServer Samples:
<https://github.com/IdentityServer/IdentityServer3.Samples/>
- OAuth for ASP.NET:
<https://github.com/matthewdunsdon/oauthforaspnet>
- JSON Web Tokens: <https://jwt.io/>





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