

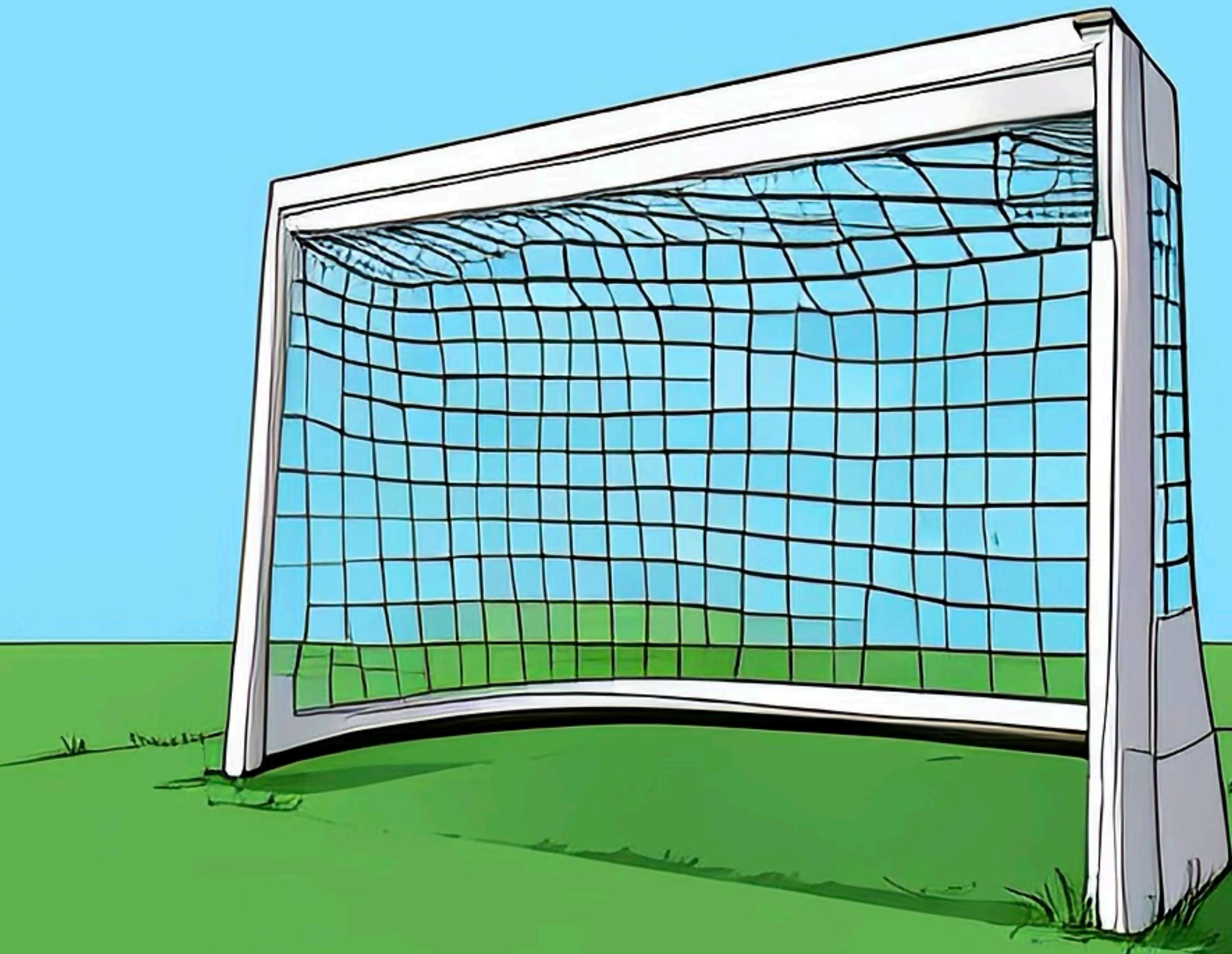
Setting up the Aspire App

Section Two



KEYCLOAK

The goal of this
section



To set up and configure Aspire and use it
to run and orchestrate an Identity
Provider (Keycloak)

Run the Aspire services and take an early
look at the dashboard.

Login to Keycloak using Postman to
retrieve a token

Demo

Introduction to Aspire



What is it?



Dashboard

The screenshot shows the 'Overflow resources' dashboard for localhost:5001. It features a sidebar with icons for Resources, Traces, Metrics, Console, and Structured logs. The main area displays a table titled 'Resources' with columns: Name, State, Start time, and Source. The table lists various services: gateway, keycloak, messaging, pgweb, postgres, profileDb, questionDb, statDb, voteDb, typesense, webapp, and profile-svc, all marked as 'Running'.

The screenshot shows the 'Structured logs' dashboard for localhost:5001/structuredlogs. It includes a search bar and filter options. The main area is a log table with columns: Level, Timestamp, and Message. The log entries show various system events, including database commands, HTTP requests, and service startups. A warning message at the bottom indicates a long-running heartbeat.

The screenshot shows the 'Traces' dashboard for localhost:5001/traces/detail/b0064362be17ffc1a22a57100c0ca009. It displays a trace detail for a 'gateway: GET /profiles/**catch-all' request. The trace tree shows the flow from the gateway to ProfileService, which then interacts with keycloak and localhost databases. A timeline chart on the right shows the duration of each span, with a total duration of 939.07ms.

Resources

Structured logs

Traces

+ Metrics + Console logs

Integrations



AppHost

Hosting integrations

Client Integrations

aspire.hosting.keycloak

aspire.authentication.keycloak

Postgres, MongoDB, RabbitMQ, Redis, Keycloak, and more...

API A

Awesome dev tool

- One place to define the whole system
- Works out of the box
- Clear app boundaries
- Local reproducability
- Gradual path to production

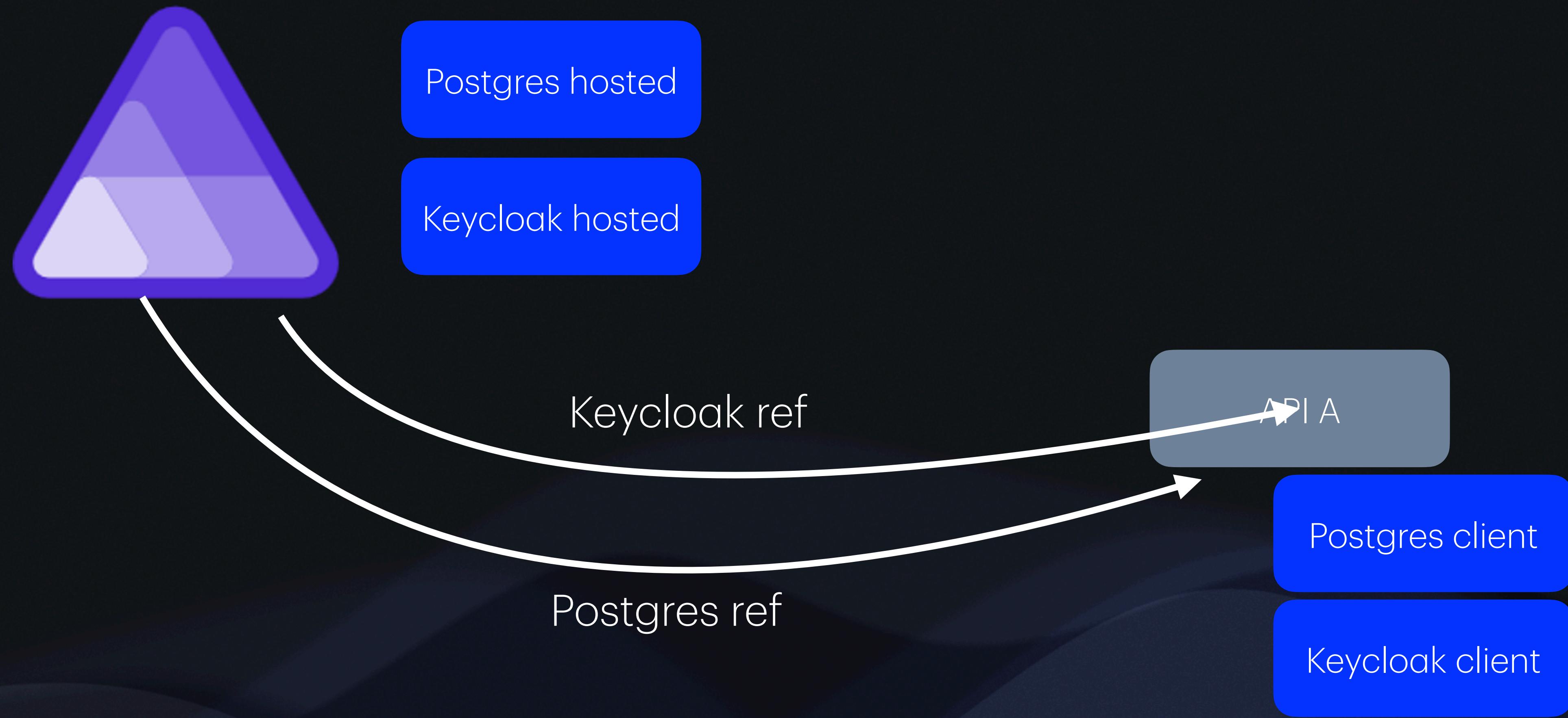
Core pieces

AppHost

Dashboard

Service Defaults

Components



Aspire pros and cons

- Speed
- Consistency
- Observability
- Type safe composition

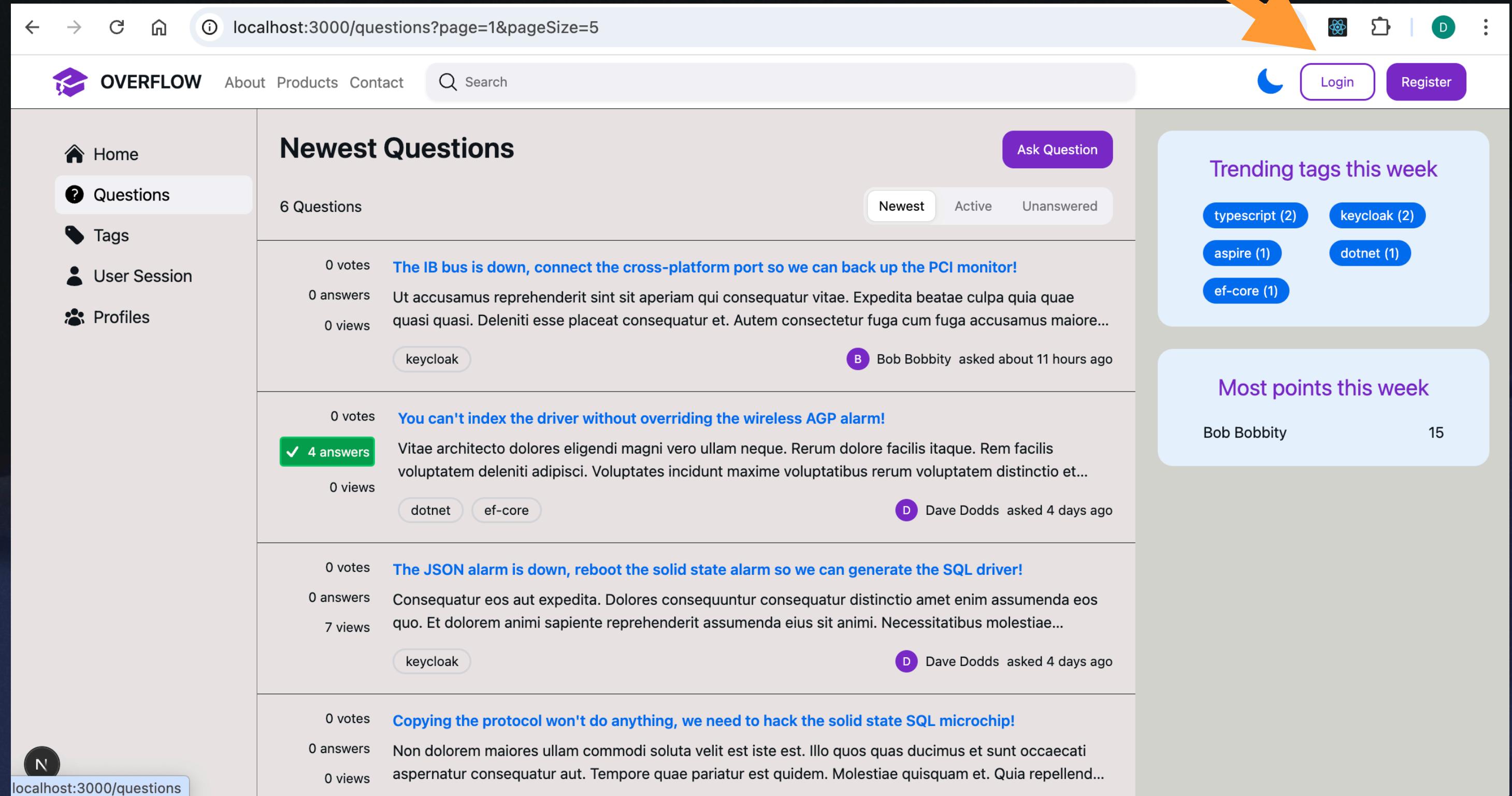
- Opinionated
- Not final IaC version
- “Magic” wiring
- Component coverage

Let's begin

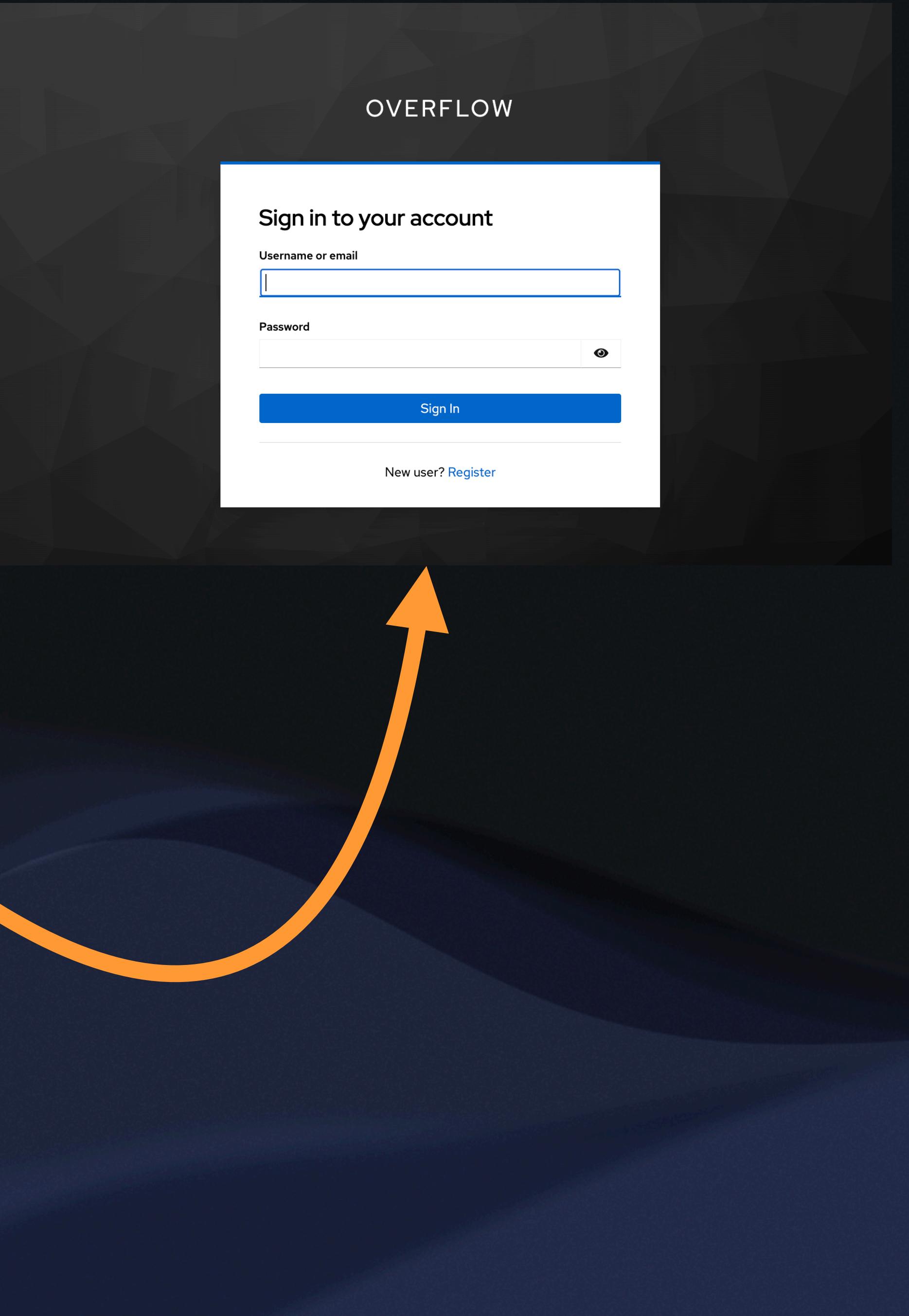
Introduction to Keycloak and OAuth 2.0



OAuth2.0



The screenshot shows the homepage of the Overflow application at localhost:3000/questions?page=1&pageSize=5. The page features a sidebar on the left with icons for Home, Questions (selected), Tags, User Session, and Profiles. The main content area displays a list of 'Newest Questions' with titles like 'The IB bus is down, connect the cross-platform port so we can back up the PCI monitor!', 'You can't index the driver without overriding the wireless AGP alarm!', 'The JSON alarm is down, reboot the solid state alarm so we can generate the SQL driver!', and 'Copying the protocol won't do anything, we need to hack the solid state SQL microchip!'. Each question card includes details such as votes, answers, views, and tags (keycloak, dotnet, ef-core). A large orange arrow points from the top-left towards the user icon in the navigation bar.



localhost:3000/questions?page=1&pageSize=5

OVERFLOW About Products Contact Search

Home Questions Tags User Session Profiles

Newest Questions

Ask Question

6 Questions Newest Active Unanswered

0 votes The IB bus is down, connect the cross-platform port so we can back up the PCI monitor! 0 answers Ut accusamus reprehenderit sint sit aperiam qui consequatur vitae. Expedita beatae culpa quia quae quasi quasi. Deleniti esse placeat consequatur et. Autem consectetur fuga cum fuga accusamus maiores... 0 views keycloak B Bob Bobbity asked about 11 hours ago

0 votes You can't index the driver without overriding the wireless AGP alarm! ✓ 4 answers 0 views Vitae architecto dolores eligendi magni vero ullam neque. Rerum dolore facilis itaque. Rem facilis voluptatem deleniti adipisci. Voluptates incident maxime voluptatibus rerum voluptatem distinctio et... dotnet ef-core D Dave Dodds asked 4 days ago

0 votes The JSON alarm is down, reboot the solid state alarm so we can generate the SQL driver! 0 answers Consequatur eos aut expedita. Dolores consequuntur consequatur distinctio amet enim assumenda eos quo. Et dolorem animi sapiente reprehenderit assumenda eius sit animi. Necessitatibus molestiae... 7 views keycloak D Dave Dodds asked 4 days ago

0 votes Copying the protocol won't do anything, we need to hack the solid state SQL microchip! 0 answers Non dolorem maiores ullam commodi soluta velit est iste est. Illo quos quas ducimus et sunt occaecati aspernatur consequatur aut. Tempore quae parvatur est quidem. Molestiae quisquam et. Quia repellend... 0 views



Logged in already?

OVERFLOW

Sign in to your account

Username or email

Password

Sign In

New user? [Register](#)

Terminology

Resource Owner Client



localhost:3000/questions?page=1&pageSize=5

OVERFLOW About Products Contact Search

Bob Bobbity

Newest Questions

6 Questions

Newest Active Unanswered

Question	Answers	Views	Tags	Asked By	Asked When
The IB bus is down, connect the cross-platform port so we can back up the PCI monitor!	0	0	keycloak	Bob Bobbity	about 11 hours ago
You can't index the driver without overriding the wireless AGP alarm!	4	0	dotnet ef-core	Dave Dodds	4 days ago
The JSON alarm is down, reboot the solid state alarm so we can generate the SQL driver!	0	7	keycloak	Dave Dodds	4 days ago
Copying the protocol won't do anything, we need to hack the solid state SQL microchip!	0	0			

Trending tags this week

- typescript (2)
- keycloak (2)
- aspire (1)
- dotnet (1)
- ef-core (1)

Most points this week

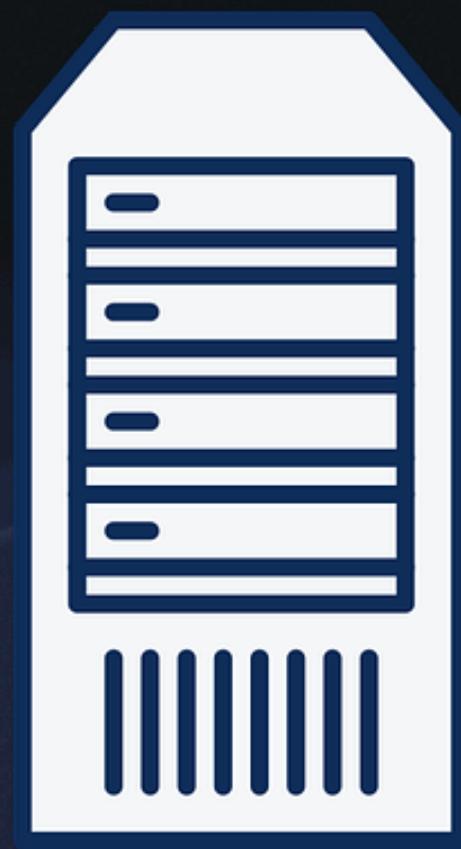
User	Points
Bob Bobbity	15

Authorization Server



Keycloak
Facebook login
Apple login
Etc

Resource Server

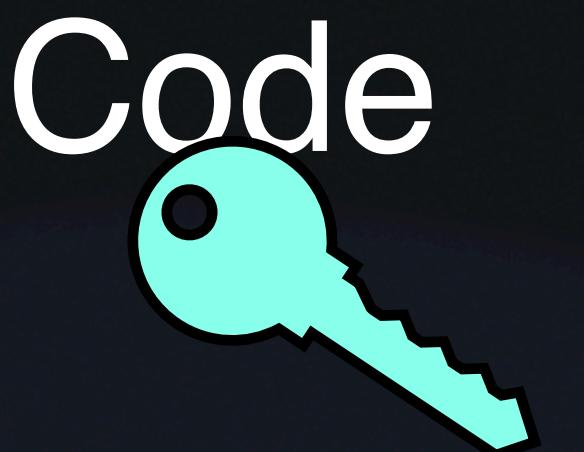
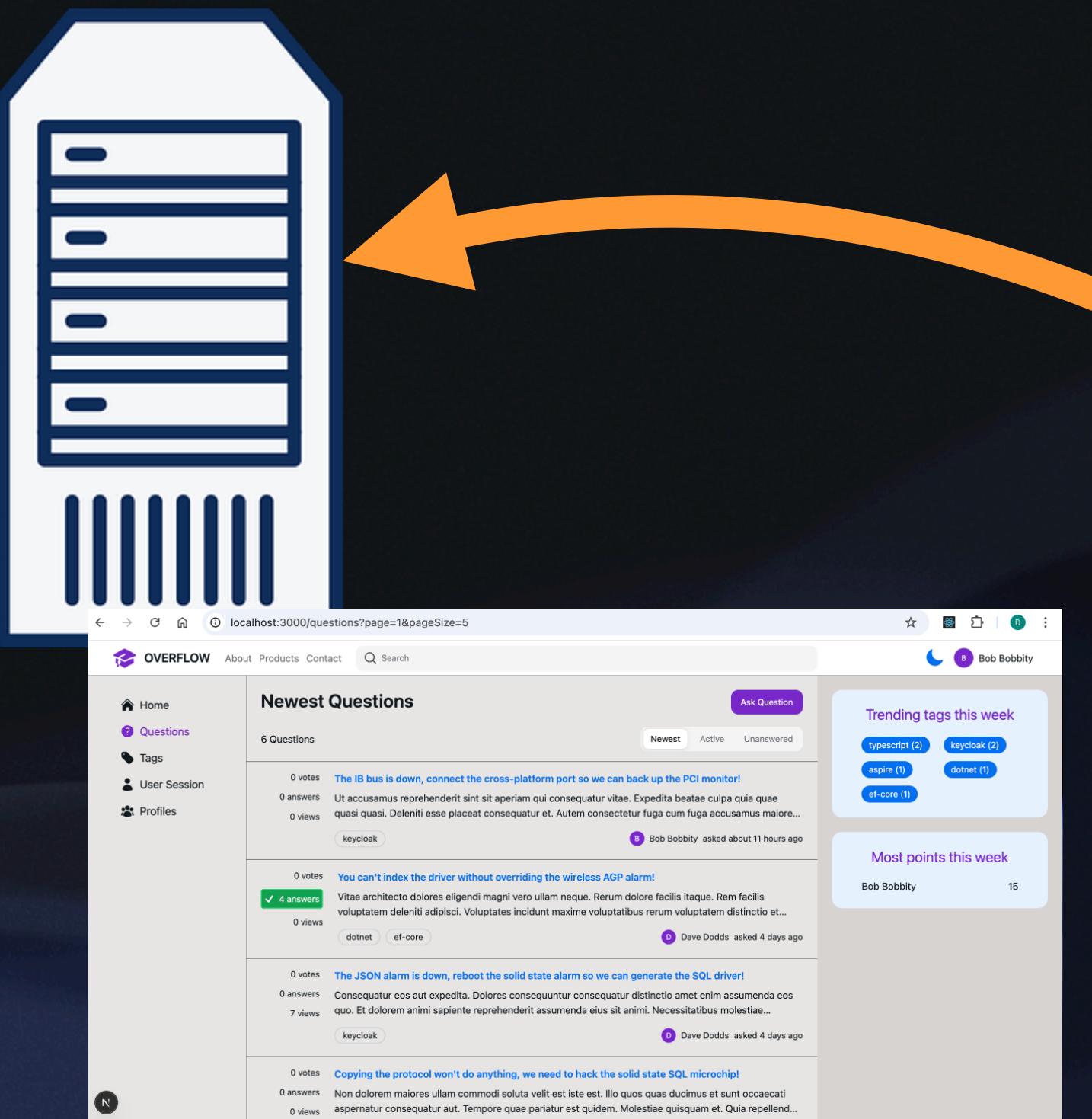


Question-svc

Redirect URI

`https://app.overflow.com/callback`

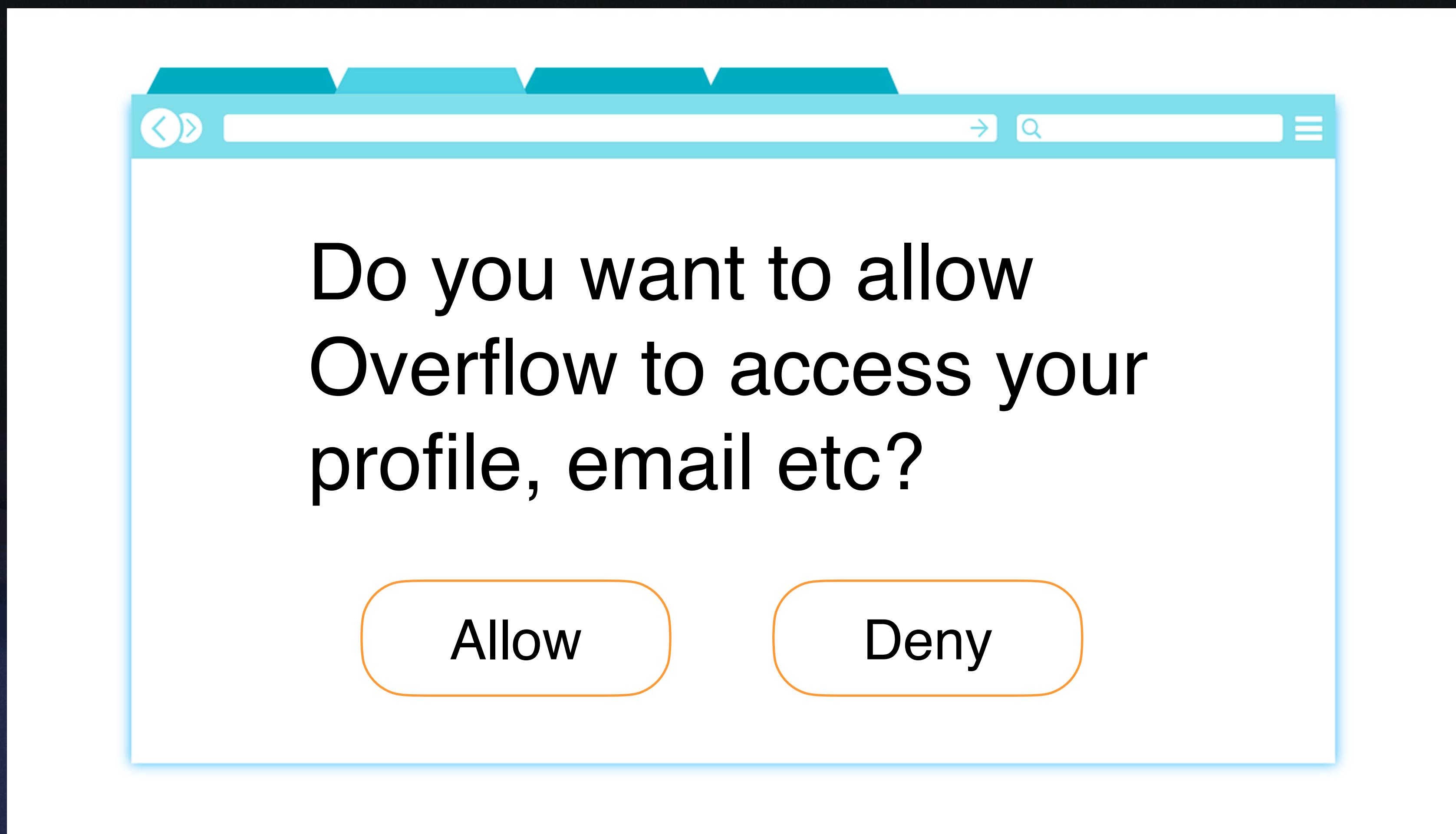
Response Type



Scope

-  Read Questions
-  Create Question
-  Delete Question
-  Read Profile

Consent



Client ID

NextJsApp

A screenshot of a web browser displaying a Next.js application. The page shows a sidebar with navigation links: Home, Questions, Tags, User Session, and Profiles. The main content area is titled "Newest Questions" and lists several questions. One question is highlighted with a yellow box and labeled "ABC1234". The question content is as follows:

0 votes **The IB bus is down, connect the cross-platform port so we can back up the PCI monitor!**
0 answers Ut accusamus reprehenderit sint sit aperiam qui consequatur vitae. Expedita beatae culpa quia quea quasi quasi. Deleniti esse placeat consequatur et. Autem consectetur fuga cum fuga accusamus maiore...
0 views
keycloak
Bob Bobbity asked about 11 hours ago

0 votes **You can't index the driver without overriding the wireless AGP alarm!**
✓ 4 answers Vitae architecto dolores eligendi magni vero ullam neque. Rerum dolore facilis itaque. Rem facilis voluptatum deleniti adipisci. Voluptates incident maxime voluptatis rerum voluptatem distinctio et...
0 views
dotnet ef-core
Dave Dodds asked 4 days ago

0 votes **The JSON alarm is down, reboot the solid state alarm so we can generate the SQL driver!**
0 answers Consequatur eos aut expedita. Dolores consequuntur consequatur distinctio amet enim assumenda eos quo. Et dolorem animi sapiente reprehenderit assumenda eius sit animi. Necessitatibus molestiae...
7 views
keycloak
Dave Dodds asked 4 days ago

0 votes **Copying the protocol won't do**
0 answers Non dolorem maiores ullam c...
0 views aspernatur consequatur au...

ABC1234

Postman

A screenshot of the Postman application interface. The top navigation bar includes Home, Workspaces, API Network, and Explore. The main area shows a workspace named "CarstiesWorkspace" with a tree view of collections and sections. A specific section is highlighted with a yellow box and labeled "DEF2345". The section content is as follows:

Collections
Carsties
Section 2
Section 3
Section 4
Section 5
Section 7
Section 8
Section 9
Section 11
Section 12
Section 13
Scratch

Environments

History

Open Workspace Overview

Create a new request:

DEF2345

Client Secret

A screenshot of a web application titled "OVERFLOW". The page displays a list of "Newest Questions" with the following details:

- The first question is titled "The IB bus is down, connect the cross-platform port so we can back up the PCI monitor!" It has 0 votes, 0 answers, and 0 views. It is tagged with "keycloak".
- The second question is titled "You can't index the driver without overriding the wireless AGP alarm!". It has 4 answers, 0 votes, and 0 views. It is tagged with "dotnet" and "ef-core".
- The third question is titled "The JSON alarm is down, reboot the solid state alarm so we can generate the SQL driver!". It has 0 votes, 0 answers, and 7 views. It is tagged with "keycloak".
- The fourth question is titled "Copying the protocol won't do anything, what's wrong?". It has 0 votes, 0 answers, and 0 views.

On the right side of the screen, there are two boxes: "Trending tags this week" and "Most points this week".

ABC1234

6LAKR6XOxGELYqZ

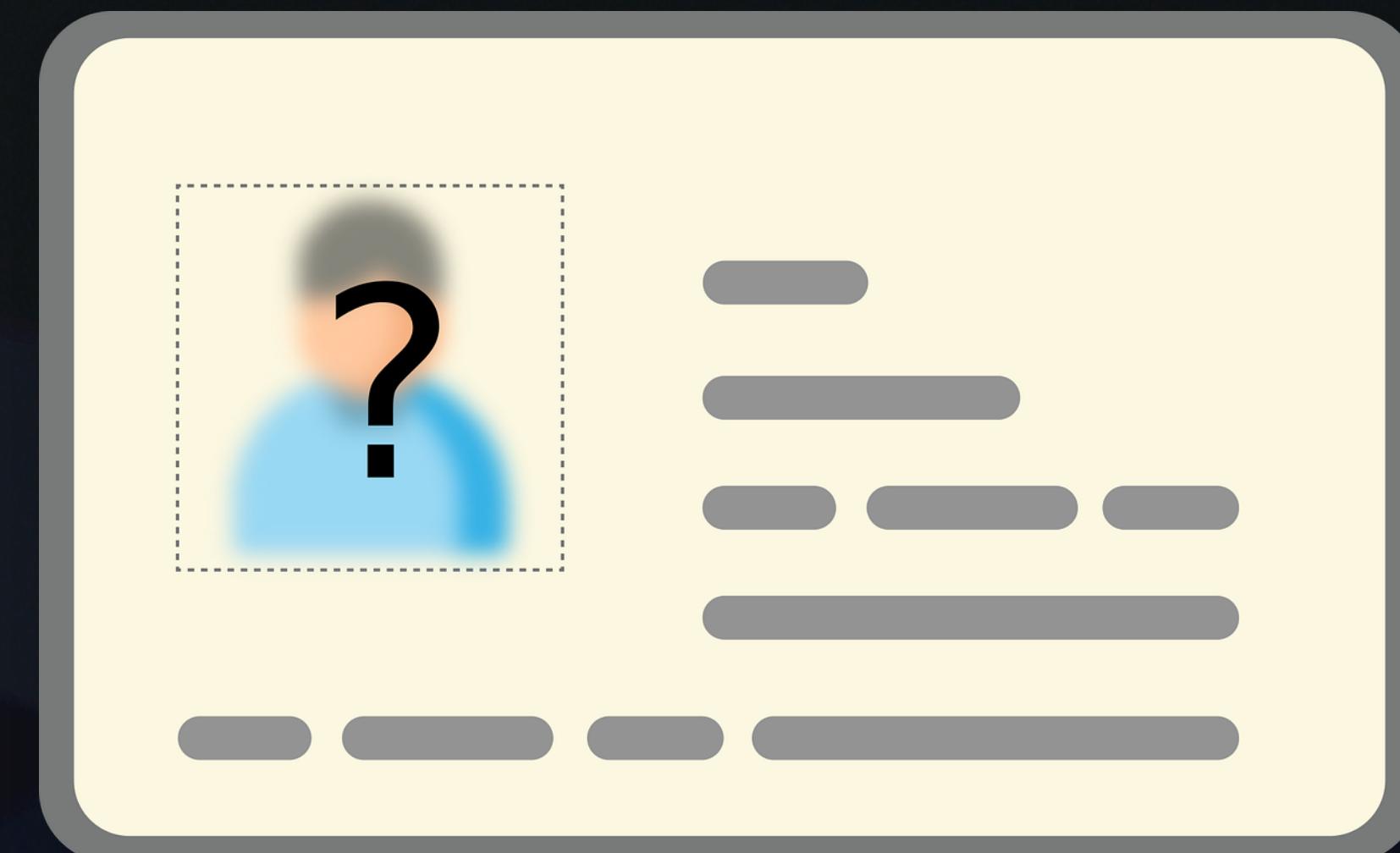


Secret for ABC1234 =
6LAKR6XOxGELYqZ

Authorization Code



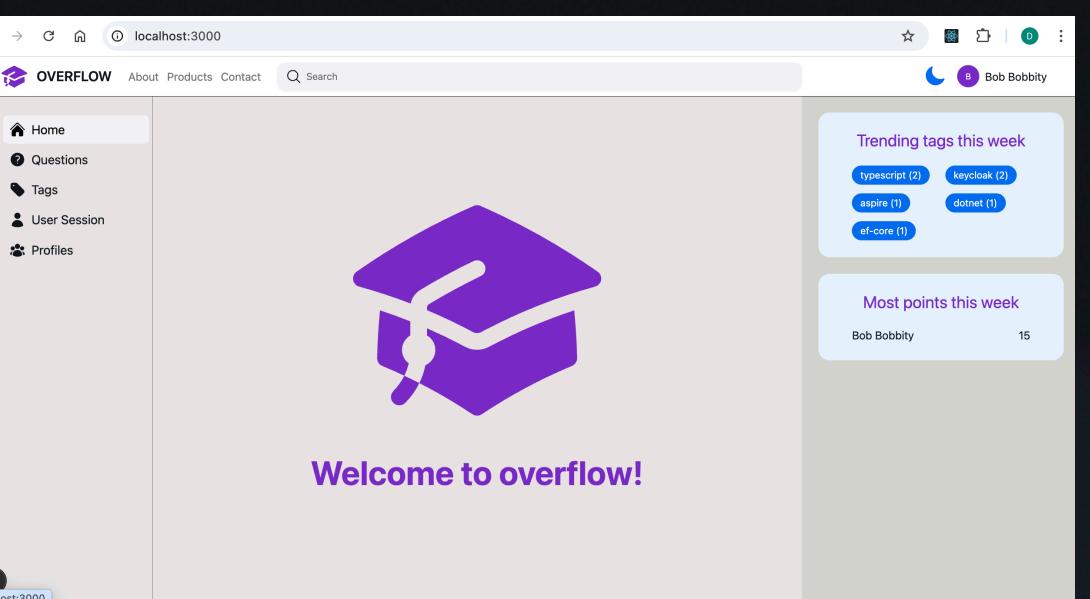
Access Token



OAuth2.0 Flow

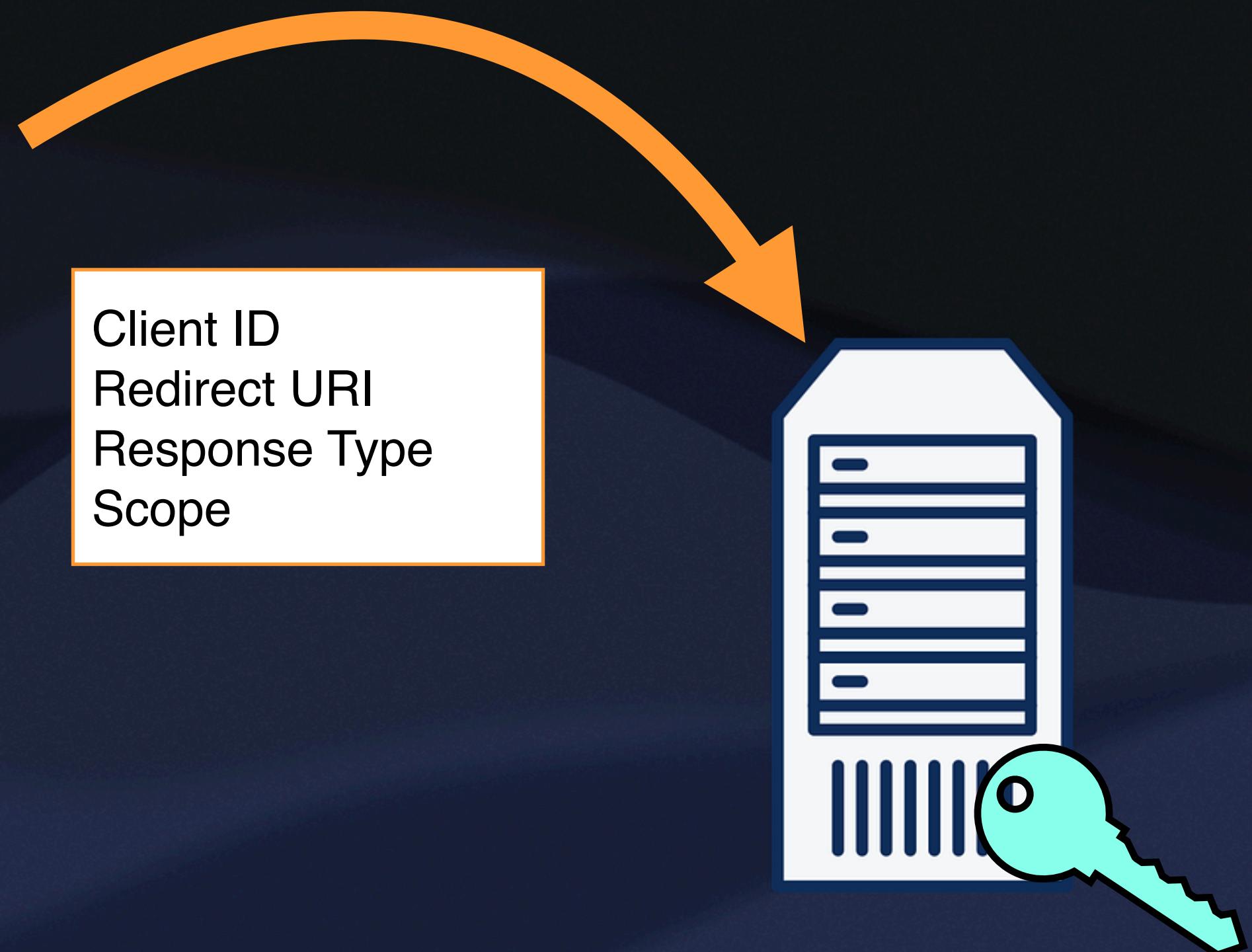


1



2

Client ID
Redirect URI
Response Type
Scope



3



Login

Username

Password

Remember My Login

New user? Register here

Login **Cancel**

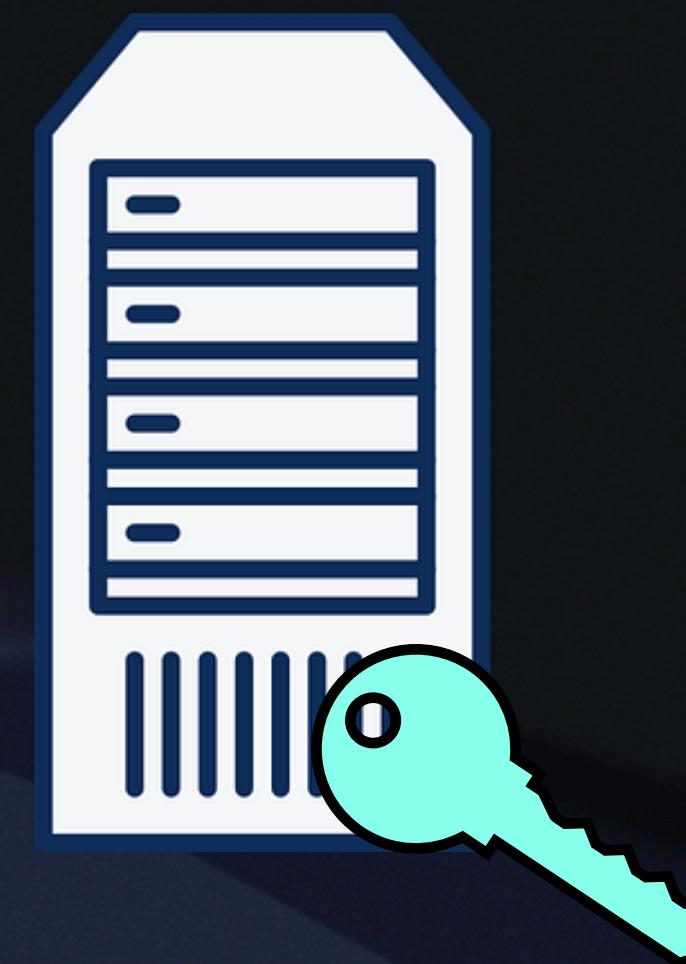
ClientId
RedirectUrl
ResponseType
Scopes



4

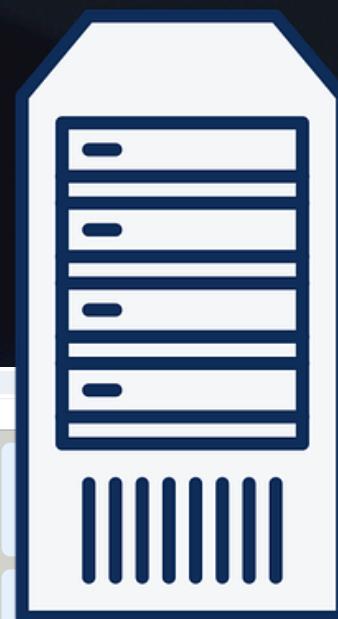
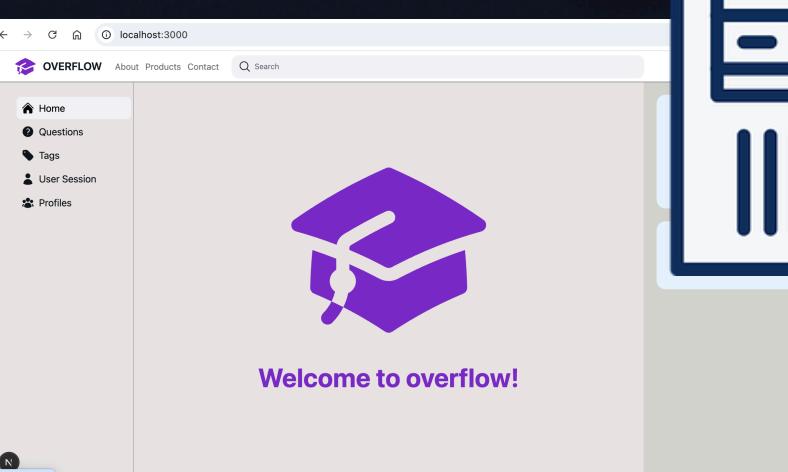


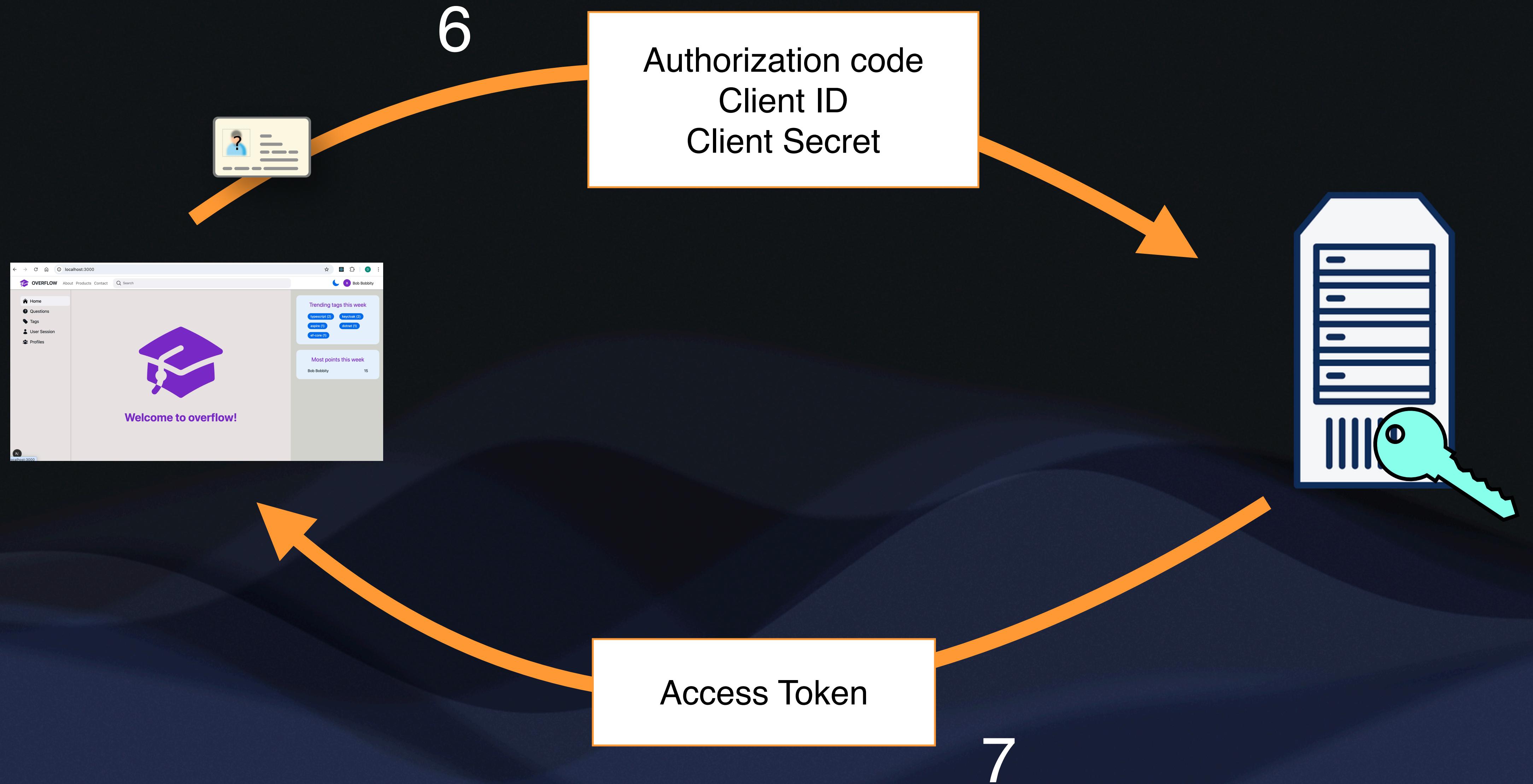
Consent form



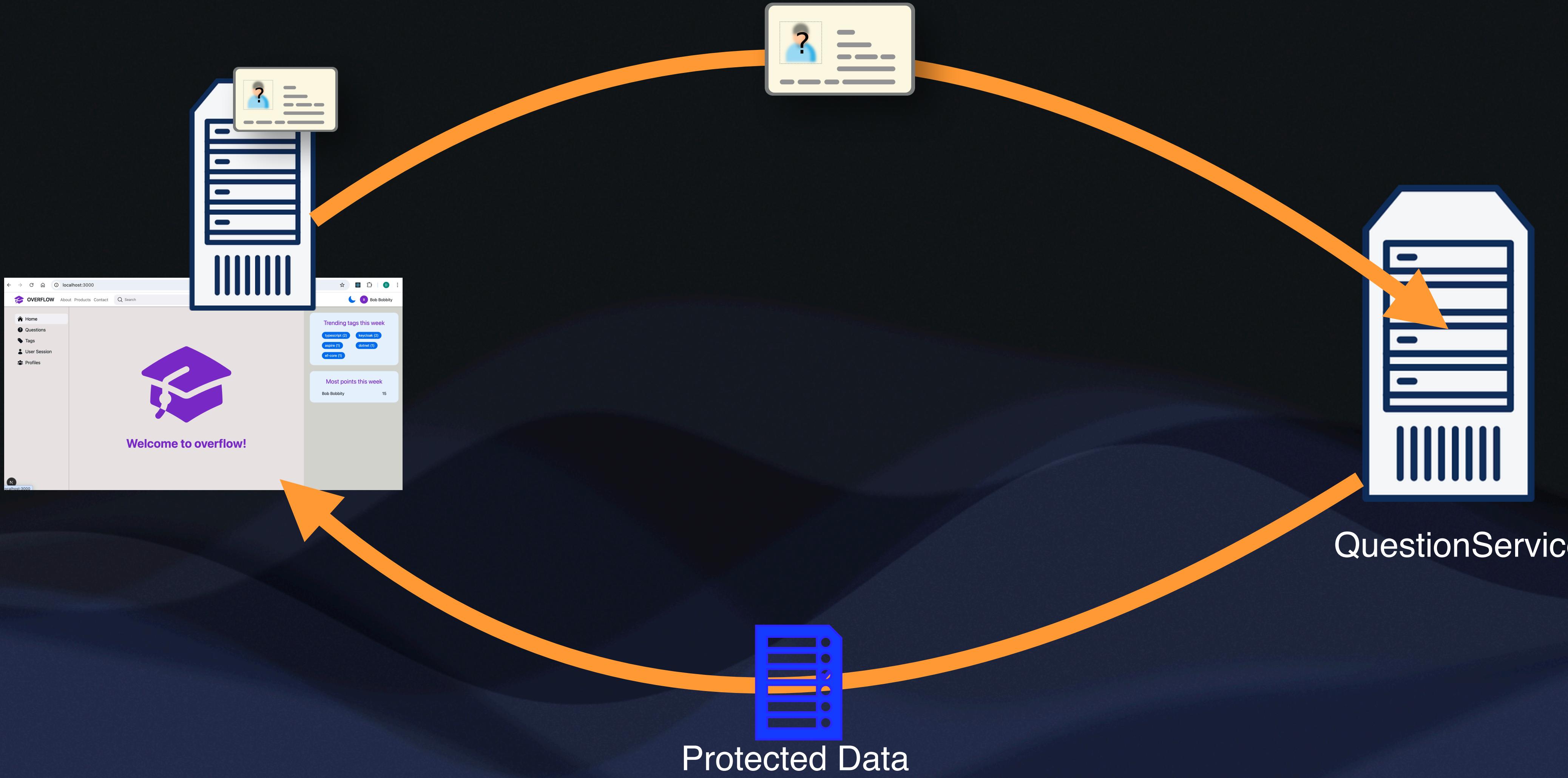
5

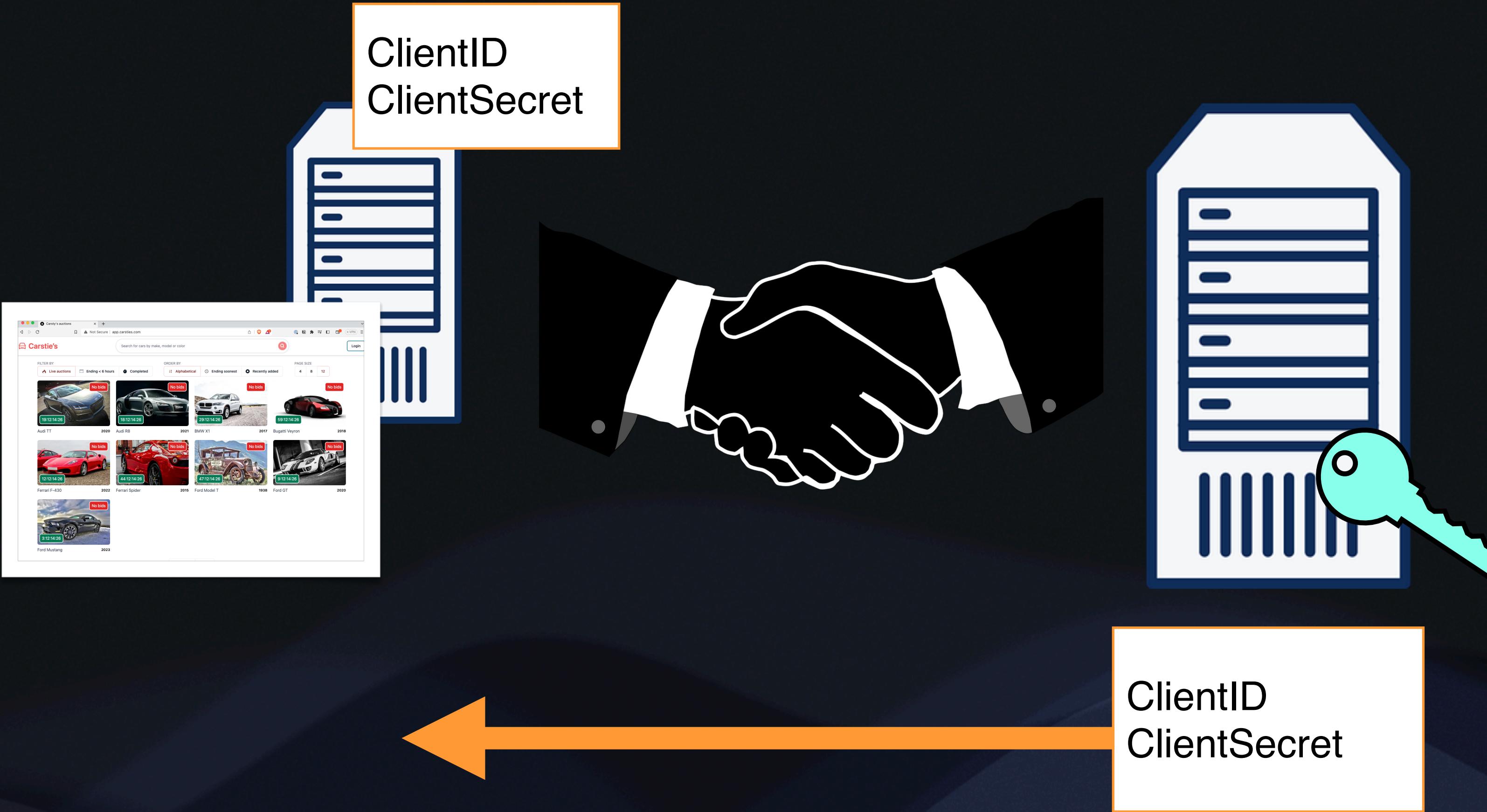
Authorization
code





8



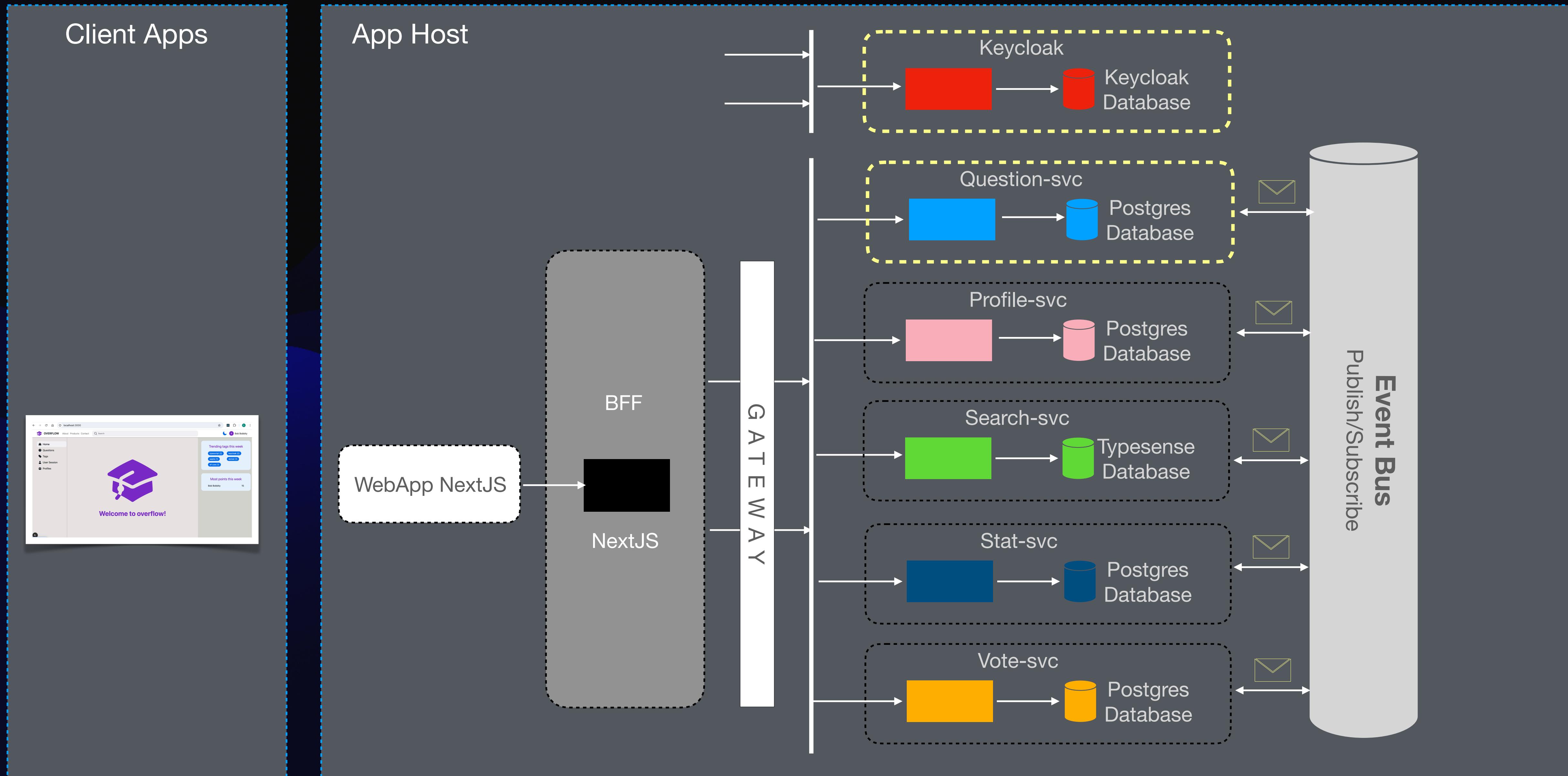


OpenId Connect

OpenID Connect

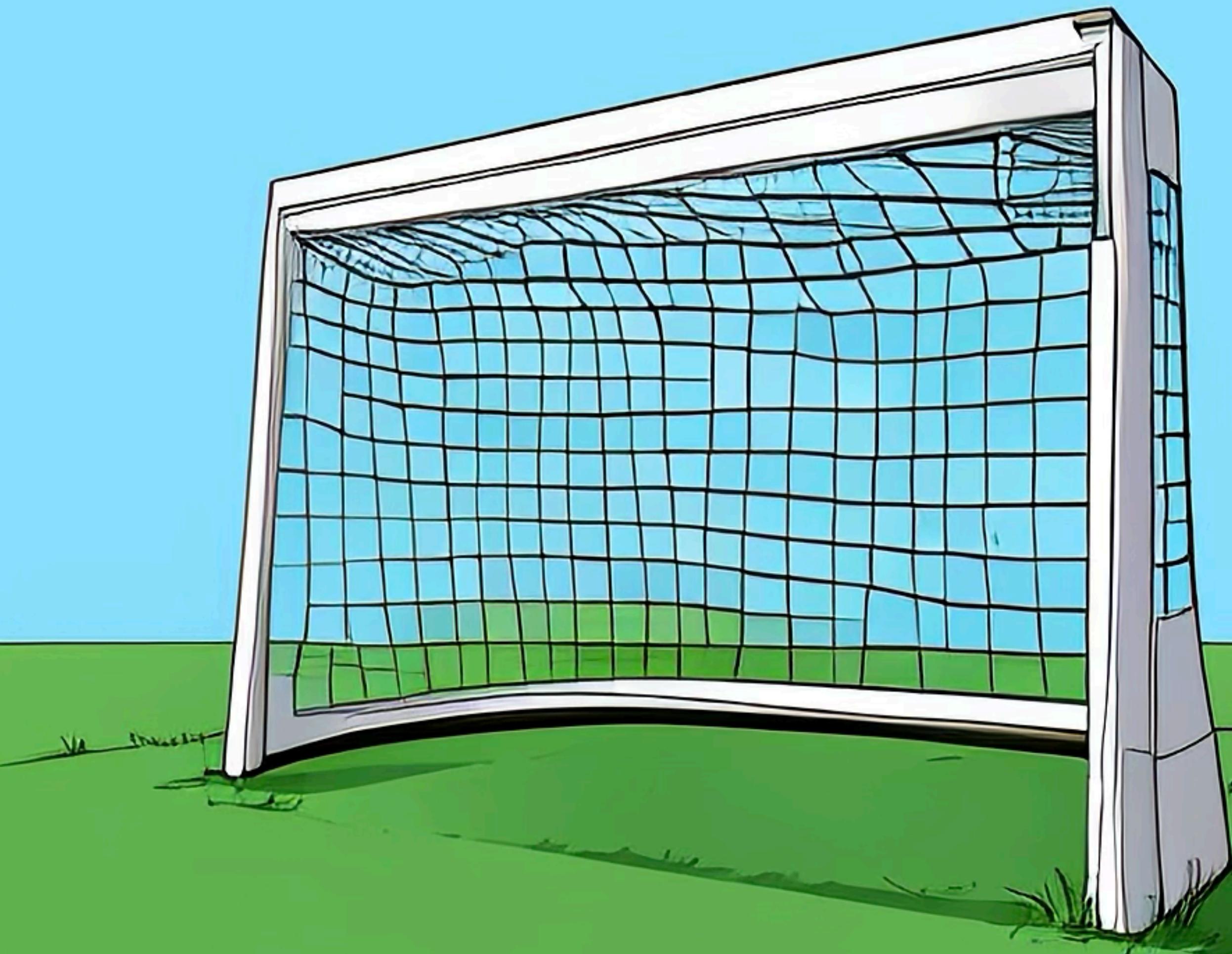
OAuth 2.0

Overflow Architecture



Section Two Summary

The goal of this
section



To set up and configure Aspire and use it
to run and orchestrate an Identity
Provider (Keycloak)

Run the Aspire services and take an early
look at the dashboard.

Login to Keycloak using Postman to
retrieve a token

Up next...