GRAPHQL IS COOLER THAN (THE) REST!

{ devConf }

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SOAP
SOAP
MANUALS
WSDL
XXDL
GRAPTQL
GRAPTQL
WSDL
MANUALS
WSDL

GRAPHQL IS A QUERY LANGUAGE AND SERVER-SIDE RUNTIME FOR APPLICATION PROGRAMMING INTERFACES (APIS) THAT GIVES API CLIENTS EXACTLY THE DATA THEY REQUESTED.

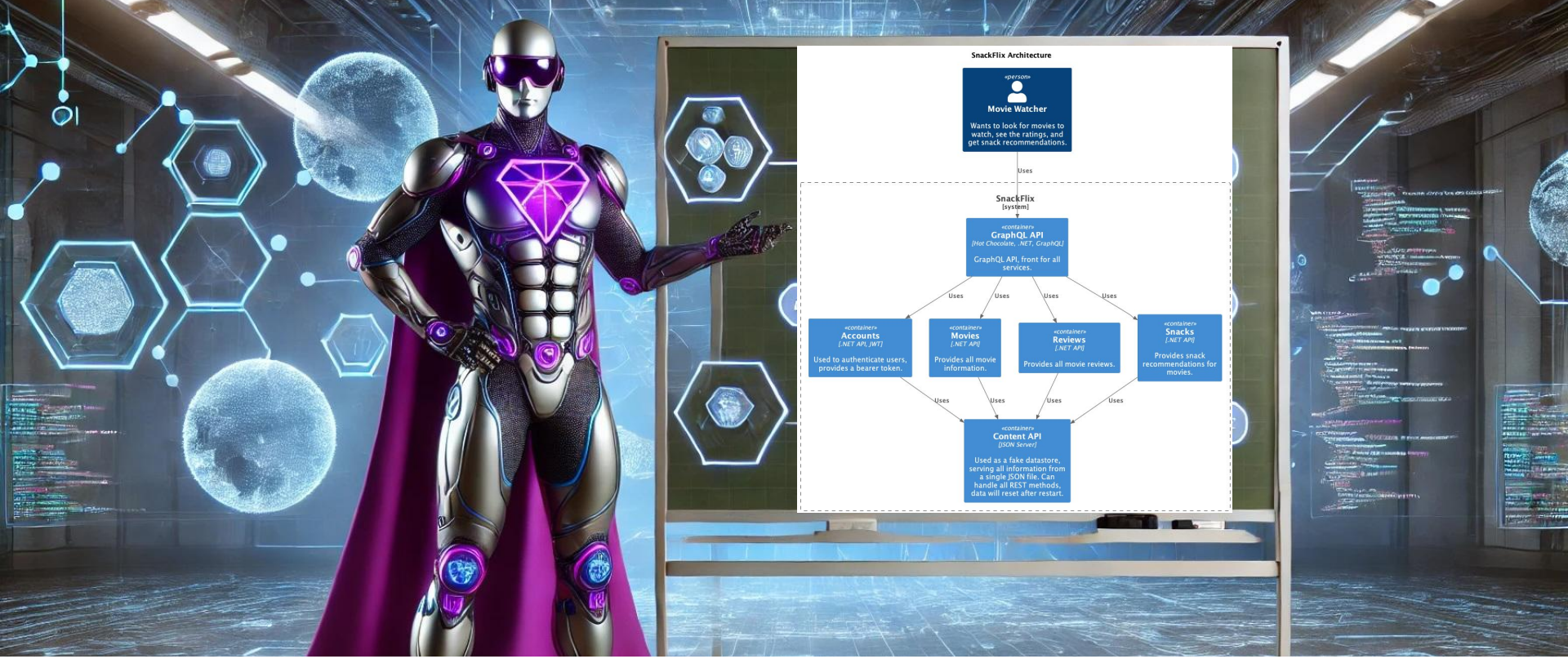
🚀 GRAPHQL 🆚 REST 🛣️

GRAPHQL

- ★ FETCH EXACTLY WHAT YOU NEED, NO OVER/UNDER-FETCHING
- ★ HIGHLY FLEXIBLE, CLIENT-DEFINED QUERIES
- ★ EFFICIENT, REDUCES MULTIPLE REQUESTS
- ★ STRONGLY TYPED SCHEMA (SDL)
- ★ AVOIDS TRADITIONAL VERSIONING BY EVOLVING SCHEMA
- ★ SUPPORTS QUERIES, MUTATIONS & SUBSCRIPTIONS
- ★ GREAT FOR COMPLEX APIS WITH DIVERSE (FRONTEND) NEEDS

REST

- ★ FIXED ENDPOINTS, OFTEN OVER/UNDER-FETCHING
- ★ LIMITED TO PREDEFINED ENDPOINTS & RESPONSES
- ★ CAN REQUIRE MULTIPLE REQUESTS FOR RELATED DATA
- ★ NO ENFORCED TYPE SYSTEM
- ★ REQUIRES VERSIONED ENDPOINTS (/V1, /V2)
- ★ SUPPORTS HTTP METHODS LIKE GET/POST/PUT/DELETE
- ★ STANDARD WEB SERVICES & SIMPLE APIS



DEMO APPLICATION: SNACKFLIX

DEMO 1: QUERIES, MUTATIONS & SUBSCRIPTIONS

A RESOLVER IS A GENERIC FUNCTION THAT FETCHES DATA FROM AN ARBITRARY DATA SOURCE FOR A PARTICULAR FIELD

EVERY DATA FETCHING TECHNOLOGY SUFFERS THE N+1 PROBLEM:

A REQUEST TO A DATA SOURCE LEADS TO N SUBSEQUENT REQUESTS TO RESOLVE THE DATA FOR ALL OF THE REQUESTED FIELDS

A DATA LOADER'S PRIMARY JOB IS TO REPLACE MULTIPLE SIMILAR REQUESTS WITH A SINGLE BATCHED REQUEST

DEMO 2: RESOLVERS, DATA LOADERS

DEMO 3: AUTHENTICATION & AUTHORIZATION

DEMO 4: GRAPHQL CLIENTS

RECAP & USE CASES

- ★ COMPLEX DATA FROM DIFFERENT SOURCES, LOWER CODE COMPLEXITY
- ★ FRONT-END QUERIES OR MOBILE APPS TO BUILD LAYOUTS
- ★ DATA FEDERATION
- ★ DATA AUTHORIZATION

QUESTIONS?

THANKS!

FEEL FREE TO CONTACT ME, IF YOU HAVE QUESTIONS, OR WANT TO KNOW MORE!

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https://github.com/jacobduijzer

Sources and inspiration

- ★ GraphQL specification
- ★ General GraphQL documentation
- ★ Hot Chocolate (.NET GraphQL server implementation)
- ★ Strawberry Shake (.NET GraphQL client)
- ★ Apollo (JavaScript GraphQL client)
- ★ GraphReads - my demo repository
- ★ ChilliCream YouTube channel (.NET GraphQL client & server)
- ★ .NET Aspire overview