Instant GraphQL API

graphile.org

Rapidly develop lightning-fast powerful applications

Features:

- Strong PostgreSQL support
- GraphQL best practices
- Simple to deploy and scale
- Highly customisable
- Powerful plugin system
  and more...

Open Source
**Instantly spin-up a GraphQL API server by pointing PostGraphile at your existing PostgreSQL database**

**PostGraphile**
Automatically detects tables, columns, indexes, relationships, views, types, functions, comments, and more - providing a GraphQL server that is highly intelligent about your data, and that automatically updates itself without restarting when you modify your database.

- Strong PostgreSQL support
- GraphQL best practices
- Simple to deploy and scale
- Highly customisable
- Impressively high performance
- Granular authorisation via RLS
- Open source under MIT license
- Powerful plugin system

**GraphQL**
A powerful query language for APIs, typically used as a replacement for RESTful API services. Open sourced in 2015, the specification has spawned the release of GraphQL servers and clients in many popular programming languages and a massive ecosystem of shared tooling.

- Strong data types
- Built-in documentation
- Powerful introspection
- Enables versionless APIs
- Eliminates over- and under-fetching
- Eases collaboration on API design
- Increases productivity
- Leads to incredible UX

**PostgreSQL**
"The world’s most advanced open source database." Growing in popularity year on year and holding its own against alternative data stores such as NoSQL, it’s a solid choice for many modern applications.

- JSONB columns, queries & indexes
- Powerful database functions
- Row-level security (RLS) since 2015
- Realtime pub/sub
- Common-table expressions (CTE)
- Views and materialized views
- Foreign data wrappers (FDW)
- Geospatial features via PostGIS

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**Anatomy of a GraphQL query**

**Operation Type** | **Operation Name** | **Variables and their types**
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query | ProfileQuery | ($id: Int!) |

Field with arguments:

- `user(id: $id) {` Fields
  - `website` Fields
    - `fullName: name` Selection set

Fragment spread:

- `...UserFrag` Selection set

**As found in our GraphQL Operation Cheatsheet**
GraphQL supports three operation types: query, mutation and subscription. This cheatsheet covers how to construct GraphQL requests for each of these operations, gives an overview of GraphQL fragments, and contains a glossary of relevant terms.

**Other resources include:**
- **GraphQL Schema Language Cheatsheet**
  GraphQL Schema Definition Language (SDL) enables teams to discuss the design of a GraphQL API using shared terminology accessible to non-programmers. This cheatsheet is a reference for the terminology and how it is used.

- **PostgreSQL Row Level Security (RLS) Infosheet**
  In 2015, PostgreSQL introduced a granular security technology, Row Level Security, in which policies containing SQL expression dictate which rows the current user may operate on. Learn about how you can increase your application security with RLS in this infosheet.

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Scan me for more info and to download our cheatsheets or visit learn.graphile.org
If your database is on another machine, you may pass a connection string in place of `my_db`.

Connection strings have the form:

`postgres://pg_user:pg_pass@pg_host:pg_port/pg_db?ssl=1`

Try it now:

```
npx postgraphile -c my_db --watch
```

requires Node.js v8.6 or higher

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