

# SUPER GRAPH

**An automagical GraphQL to SQL compiler**


WRITING APIS  
TO TALK TO DATABASES  
IS 90% OF WEB APP BACKENDS

MOST DEVS.  
DON'T KNOW SQL  
DON'T PLAN TO LEARN IT!

# Always Evolving UIs


UIs today are complex and fast evolving which require APIs to keep up.


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## Navigating the GAN Parameter Space for Semantic Image Editing

Anton Cherepkov, Andrey Voynov, Artem Babenko

Generative Adversarial Networks (GANs) are currently an indispensable tool for visual editing, being a standard component of image-to-image translation and image restoration pipelines. Furthermore, GANs are especially useful for controllable generation since their latent spaces contain a wide range ...[more](#)

   [NEW](#)



[Computers and Society](#)   [Information Retrieval](#)   [Social and Information Networks](#)

## Evaluating the scale, growth, and origins of right-wing echo chambers on YouTube

GRAPHQL GIVES  
FRONTEND DEVS. MORE POWER

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# Build a Blog

Fetch Posts, Votes on Posts,  
Authors, Comments, Comment  
Authors, ...

```
1 ▼ query {  
2   ▼ posts(first: 5, after: $cursor) {  
3     title  
4     body  
5     votes {  
6       ...User  
7     }  
8     author {  
9       ...User  
10    }  
11  ▼ comments {  
12    body  
13    author {  
14      ...User  
15    }  
16  }  
17 }  
18 }
```

# Easy for Devs

Kinda looks like JSON if you squint.

```
1 ▼ query {
2   ▼ posts(first: 5, after: $cursor) {
3     title
4     body
5     votes {
6       ...User
7     }
8     author {
9       ...User
10    }
11  ▼ comments {
12    body
13    author {
14      ...User
15    }
16  }
17 }
18 }
```



COMPLEX NESTED GRAPHQL QUERIES  
COMPILE INTO A  
SINGLE EFFICIENT SQL QUERY.

NESTED  
SELECTS, INSERTS, UPDATES  
COMPILE TO  
A SINGLE SQL QUERY

```

query {
  user : me {
    slug
    first_name
    last_name
    picture_url
    bio
  }
  thread(first: 20, after: $cursor, order_by: { cached_votes_total: desc }) {
    slug
    title
    published
    cached_posts_total
    vote : thread_vote(where: { user_id: { eq: $user_id } }) {
      created_at
    }
    topics {
      slug
      name
    }
    author : me {
      slug
    }
    posts(first: 20, order_by: { cached_votes_total: desc }) {
      slug
      body
      published
      created_at
      cached_votes_total
      vote : post_vote(where: { user_id: { eq: $user_id } }) {
        created_at
      }
      author : user {
        slug
        firstName : first_name
        lastName : last_name
      }
    }
  }
}

```

```

SELECT
  jsonb_build_object('thread', "__sj_0"."json") as "__root"
FROM
  (
    SELECT
      to_jsonb("__sr_0") AS "json"
    FROM
      (
        SELECT
          "threads_0"."slug" AS "slug",
          "threads_0"."title" AS "title",
          "threads_0"."published" AS "published",
          "threads_0"."created_at" AS "createdAt",
          "threads_0"."cached_votes_total" AS "totalVotes",
          "threads_0"."cached_posts_total" AS "totalPosts",
          "__sj_1"."json" AS "posts",
          "__sj_1"."cursor" AS "posts_cursor",
          "__sj_4"."json" AS "author",
          "__sj_5"."json" AS "topics",
          "__sj_6"."json" AS "vote"
        FROM
          (
            SELECT
              "threads"."slug",
              "threads"."title",
              "threads"."published",
              "threads"."created_at",
              "threads"."cached_votes_total",
              "threads"."cached_posts_total",
              "threads"."id",
              "threads"."user_id",
              "threads"."topic_ids"
            FROM
              "threads"
            WHERE
              (
                (
                  ("threads"."published") = 'true' :: boolean
                )
                OR (
                  ("threads"."user_id") = '5' :: bigint
                )
              )
          )
          LIMIT
            ('1') :: integer
      ) AS "threads_0"
    )
  )

```

APIs THAT TOOK WEEKS TO  
BUILD NOW TAKE 5  
MINUTES

# Subscriptions

Horizontally scaling, 100K subscribers with less than 5 queries per second.

```
1 ▼ subscription {  
2   ▼ customers(first: 5, after: $cursor) {  
3     id  
4     email  
5   ▼ products {  
6     name  
7     id  
8     price  
9   }  
10  my_vote :vote(where: { user_id: $user_id }) {  
11    created_at  
12  }  
13 }  
14 }
```

ROLE BASED ACCESS CONTROL  
FULL TEXT SEARCH  
EFFICIENT CURSOR PAGINATION  
POLYMORPHIC RELATIONSHIPS

STANDALONE SERVICE  
&  
GO LIBRARY

1K+ GITHUB STARS

25+ CONTRIBUTORS

GROWING DISCORD

USED IN PROD.

GREAT DOCS.

THANKS

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