

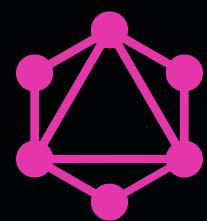
# GraphQL

A visual introduction



Manish Poduval

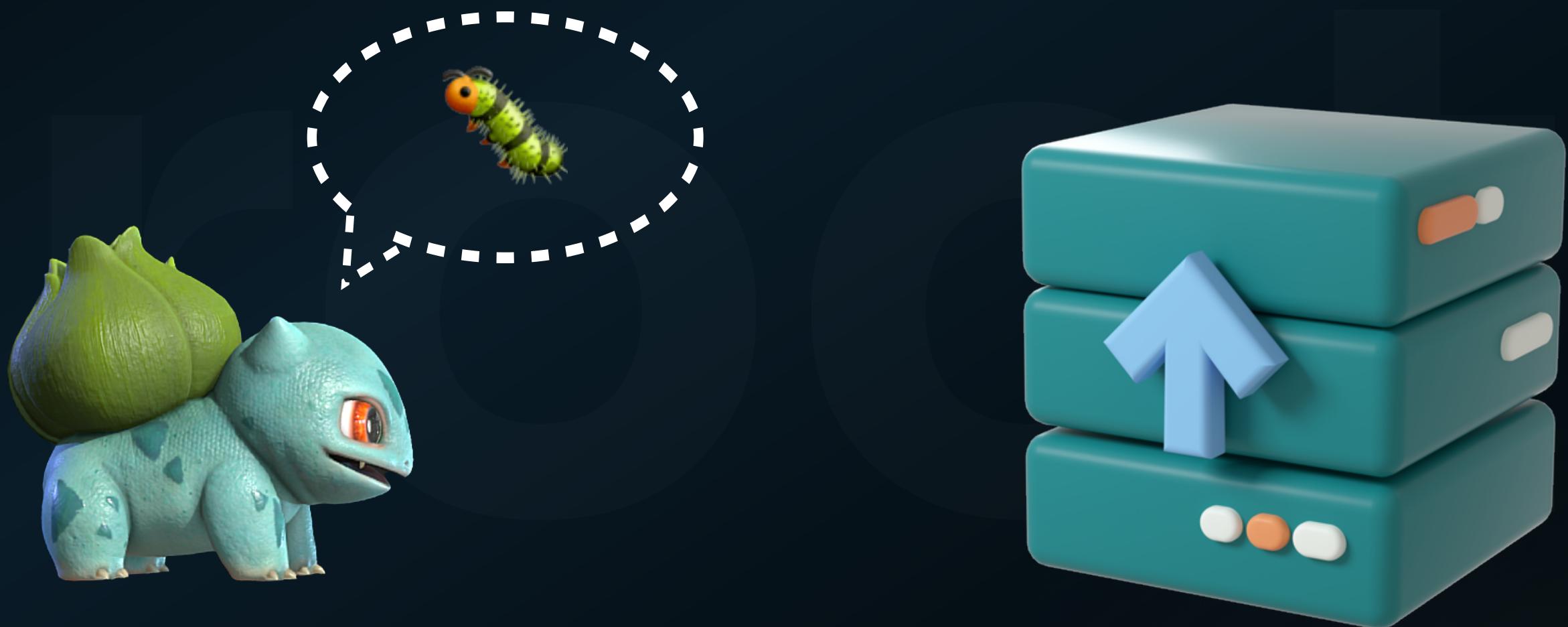




# What is it ?

## A Query Language

In simple terms, it is a way of fetching only the data that you need from the server.



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Technically it's an API standard/specification and can be implemented irrespective of the tech stack

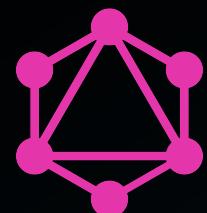
Check the specs at  
[specs.graphql.org](https://specs.graphql.org)

Visualizing it, you could see it as this way.



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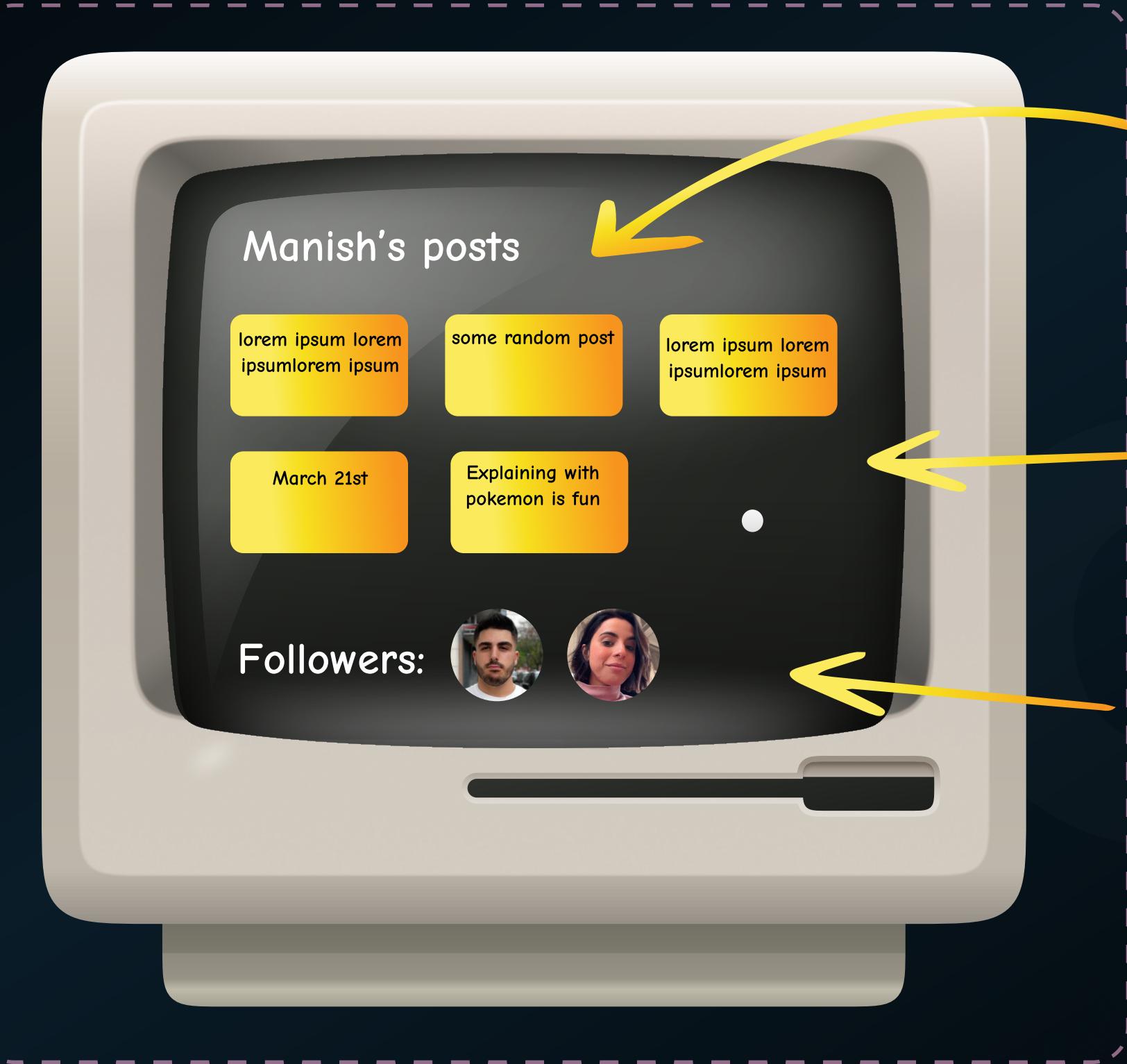




# How is it better than REST API's

Well, let's say you're building a blogging website

Assume you're using 3 APIs to get data



An API to fetch user details with extra info

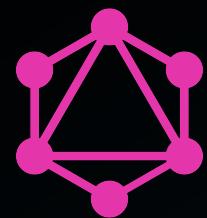
API to fetch posts

API to fetch followers details



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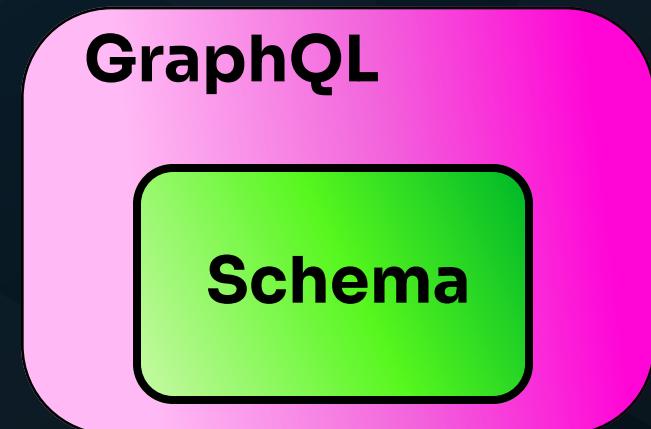


with GraphQL you'd only need 1



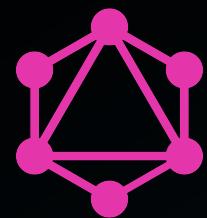
How only a single endpoint ?

It does that using a  
strongly typed schema



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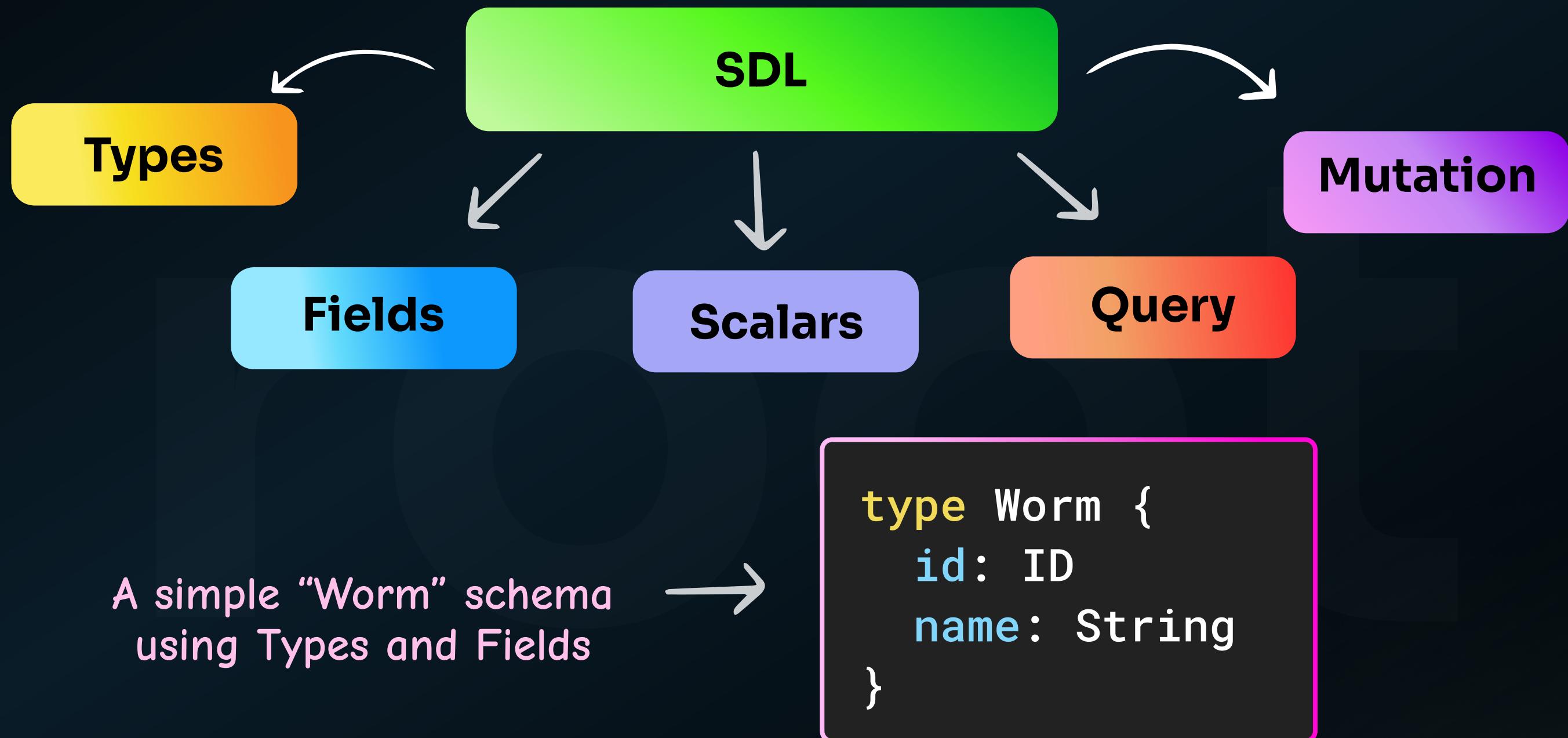




# The Schema Definition Language (SDL)

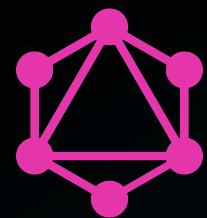
The SDL consists of a few basic parts. With the SDL we can create our schema.

A schema defines the shape of our data



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## Thinking in graphs . . .

You can also establish relations between types

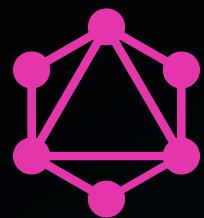
```
type Worm {  
  id: ID  
  name: String  
  loc: [Home]  
}
```

```
type Home {  
  id: ID  
  title: String  
}
```



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# There are two operations you can do

## Queries

They are used to retrieve data

```
{  
  worms {  
    names  
  }  
}
```

Fetches the names from a worms list API

## Mutations

They are used to create, update or delete data

```
mutation {  
  createWorm(legs: "7")  
}
```

Would create a worm entry

- There is also “Subscriptions”.  
(Topic for another day )



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# You get the picture right ?

Our query

```
{  
  worm(color: "green") {  
    body  
  }  
}
```

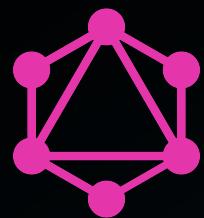


GraphQL



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## GraphQL has it's benefits

Can be used in any tech stack

No over-fetching or under-fetching data

Tailored requests

Strongly typed

Suitable for smaller networks

API growth without versioning



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# Want to be a part of **root** ?

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yourself

