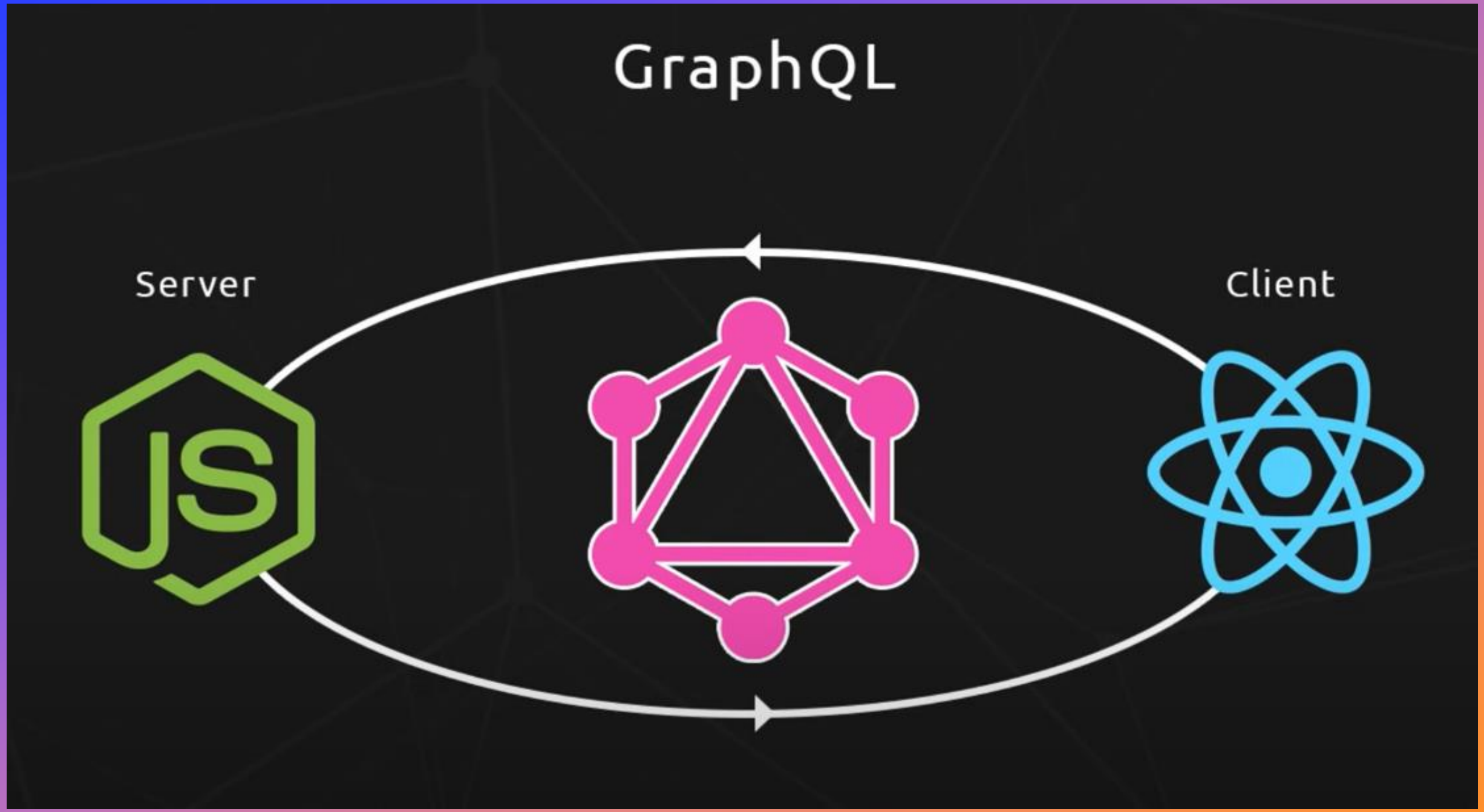
GRAPHQL TUTORIAL

In this series we'll be creating, from scratch, a full-stack application, including a GraphQL server on Node.js, a React front-end (with Apollo) and MongoDB to store all of our data


GraphQL
Server
Client
JS

What is GraphQL?

- GraphQL is a powerful query language

- Allows for a more flexible & efficient approach than REST

A RESTful Approach...

- Endpoint for getting a particular book:

  domain.com/books/:id

  title, genre, reviews, authorId

- Endpoint for getting the author info of that book:

  domain.com/authors/:id

  name, age, biography, bookIds

A GraphQL Approach...

- Query to get book data and it's author data (AND the other books):

```
{
  book(id: 123) {
    title
    genre
    reviews
    author {
      name
      bio
      books {
        name
      }
    }
  }
```

A GraphQL Approach...

- Query to get book data and it's author data (AND the other books):

```
{
  book(id: 123) {
    title
    genre
    reviews
    author {
      name
      bio
      books {
        name
      }
    }
  }
}
```

```
{
  book(id: 123) {
    title
    author {
      name
      books {
        name
      }
    }
  }
}
```

A BIRD'S EYE VIEW OF GRAPHQL

REST API Endpoints

Front-end application
(browser)

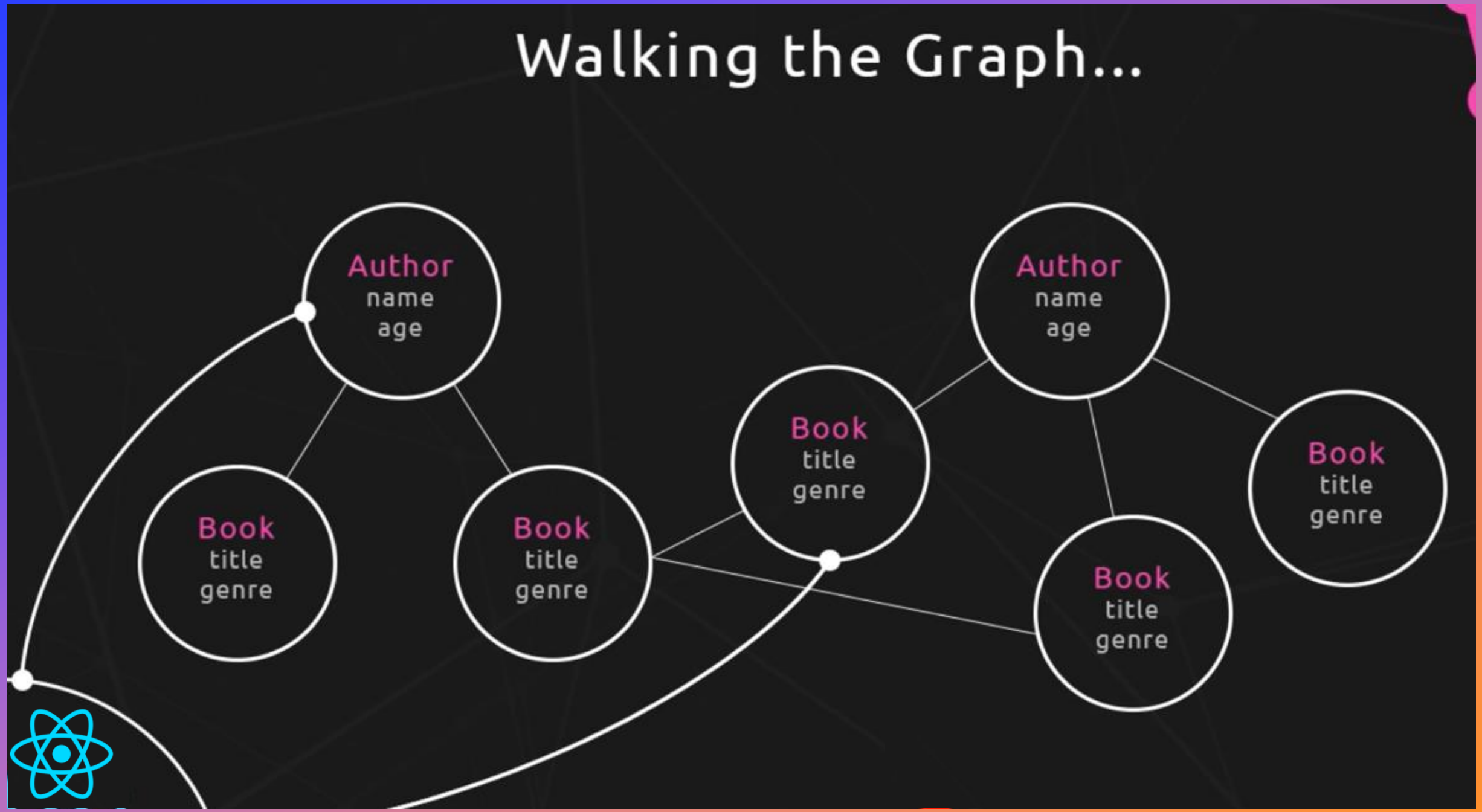
Get all books:
domain.com/books

Get a single book:
domain.com/books/:id

Get all authors:
domain.com/authors

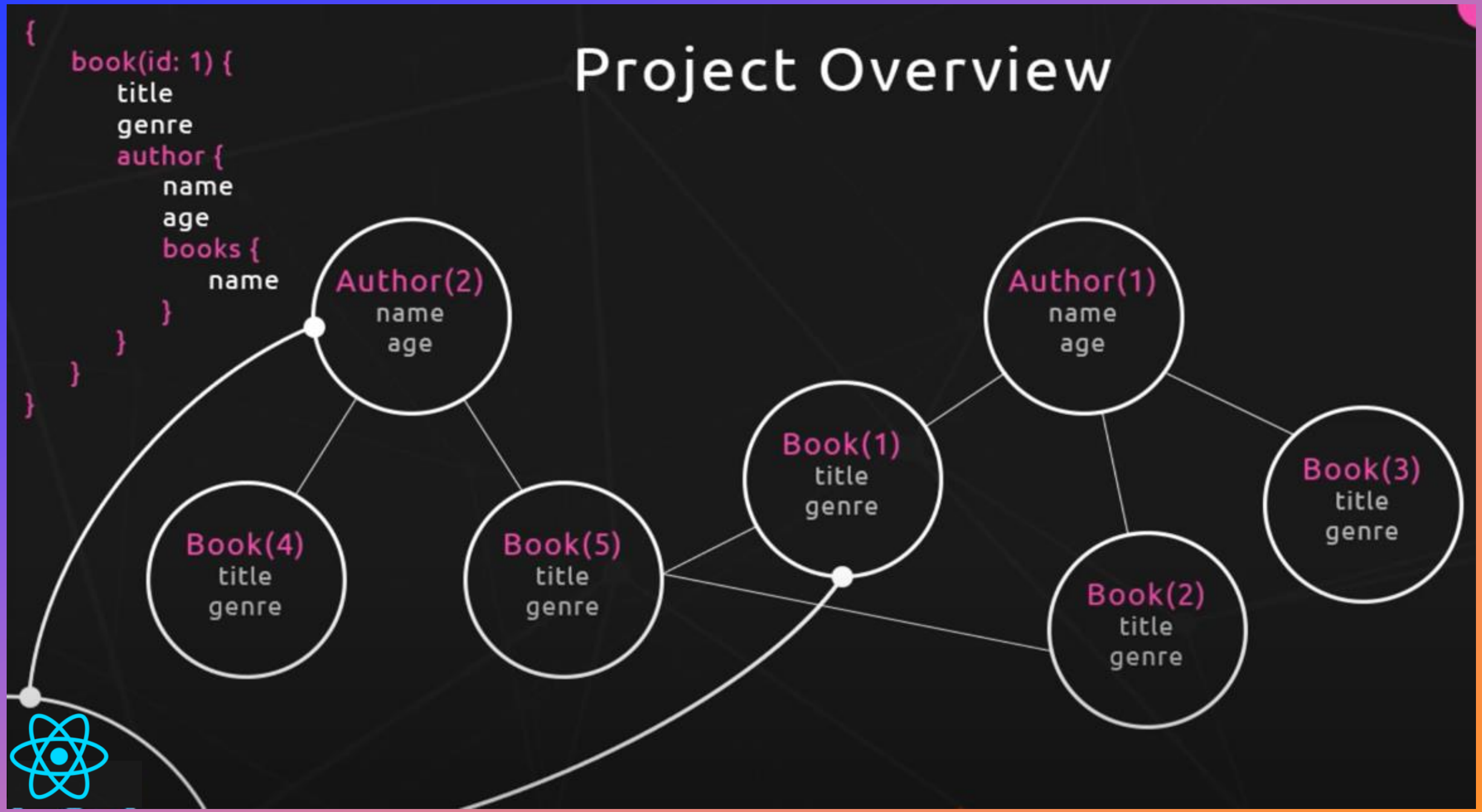
Get a single author:
domain.com/authors/:id

Walking the Graph...



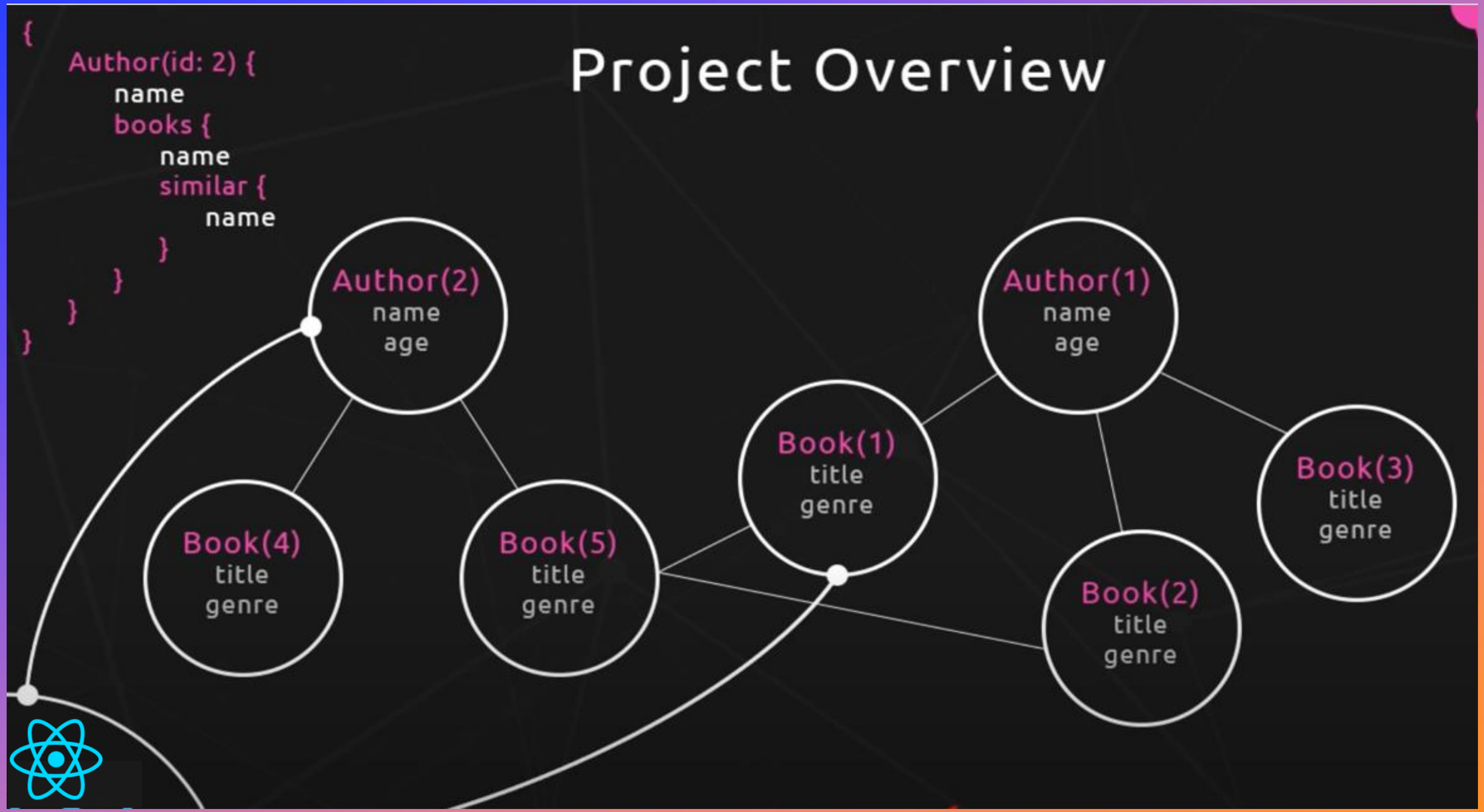
Project Overview

```
{
    book(id: 1) {
        title
        genre
        author {
            name
            age
            books {
                name
            }
        }
    }
}
```



Project Overview

```
{
    Author(id: 2) {
        name
        books {
            name
            similar {
                name
            }
        }
    }
}
```

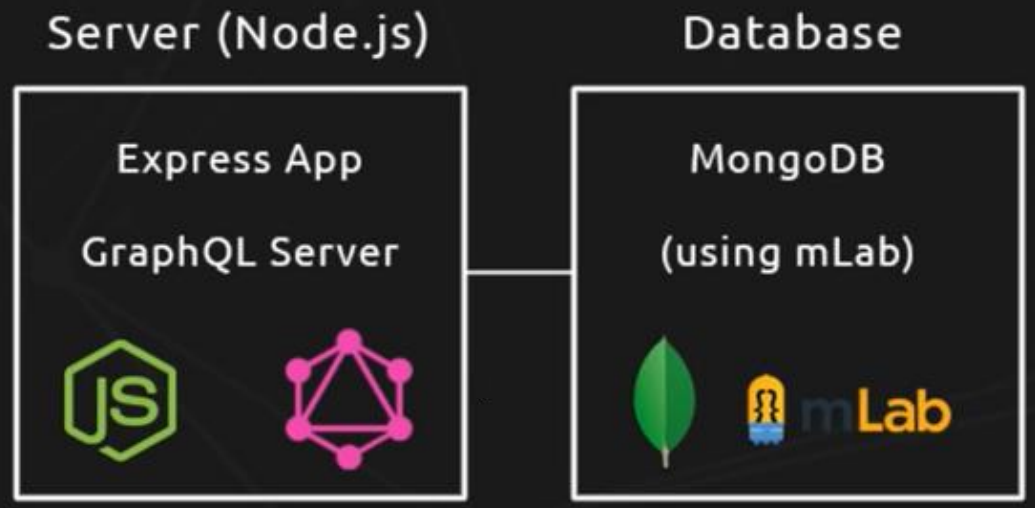


PROJECT (STACK) OVERVIEW

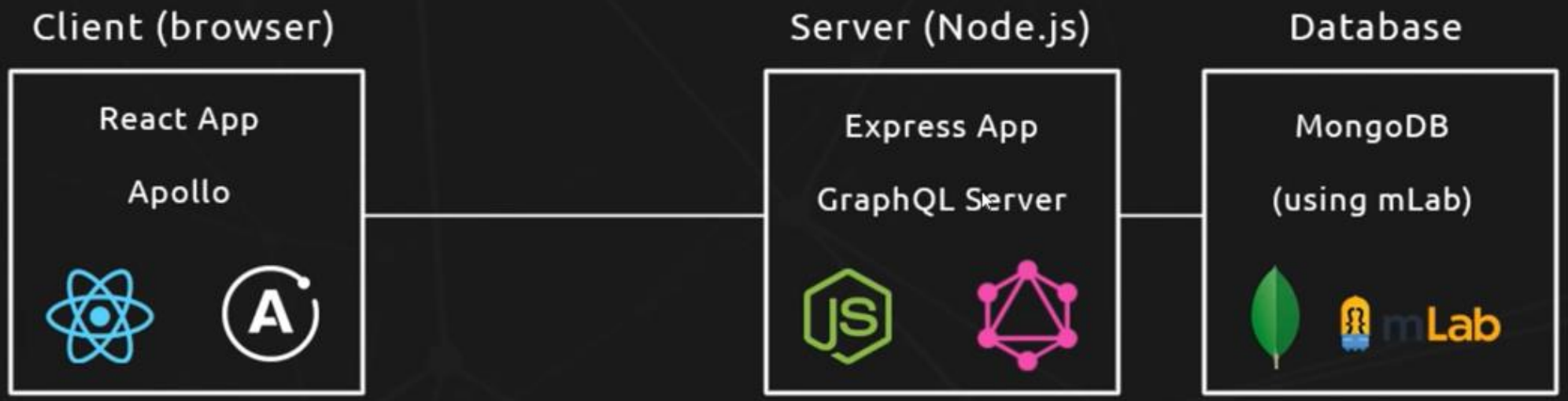
We'll be using Node on the back-end to create a GraphQL server, and React on the front-end to query the server.

Project Overview

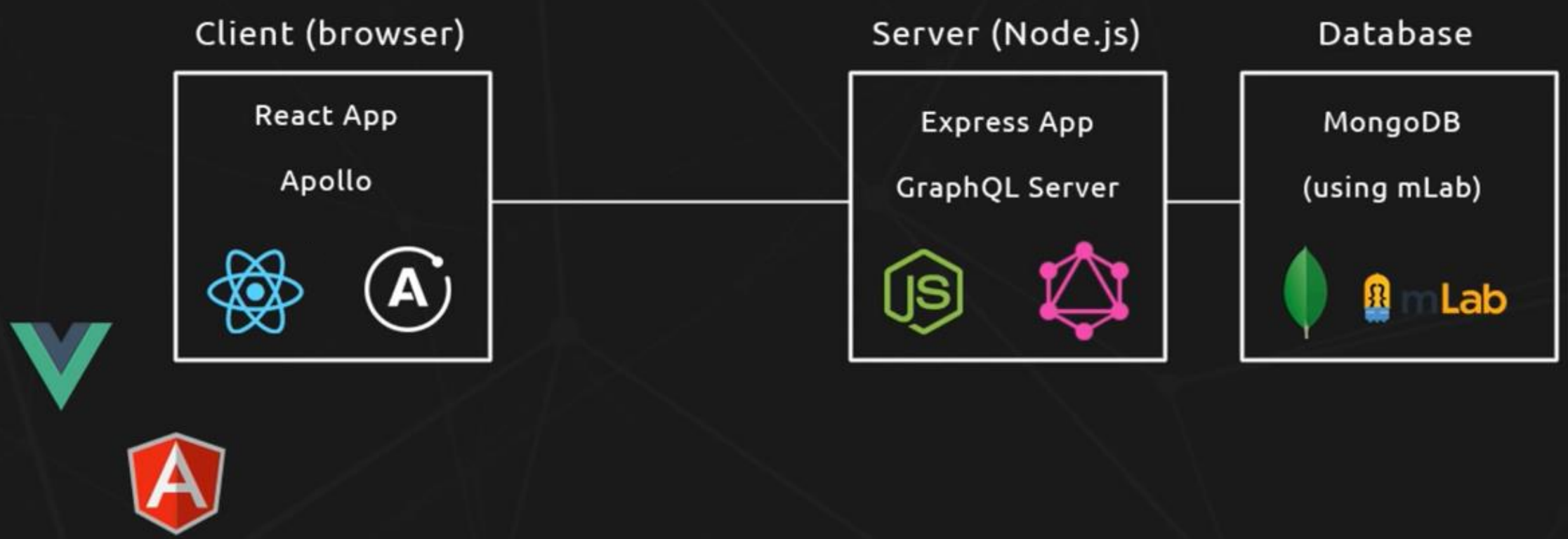
Project Overview



Project Overview



Project Overview



Project Overview