Kickstarting with GraphQL
using Golang

Hotel Savita Inn, 14 July 2018

About Me

Arief Ditia Faltah

Oktagon
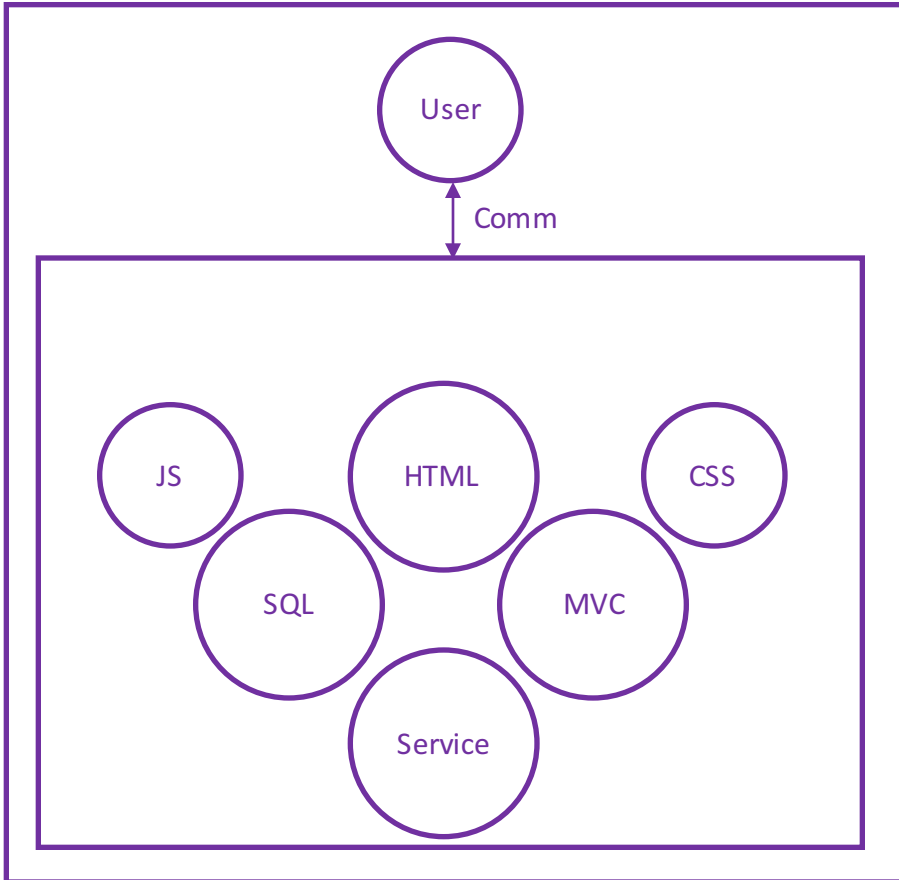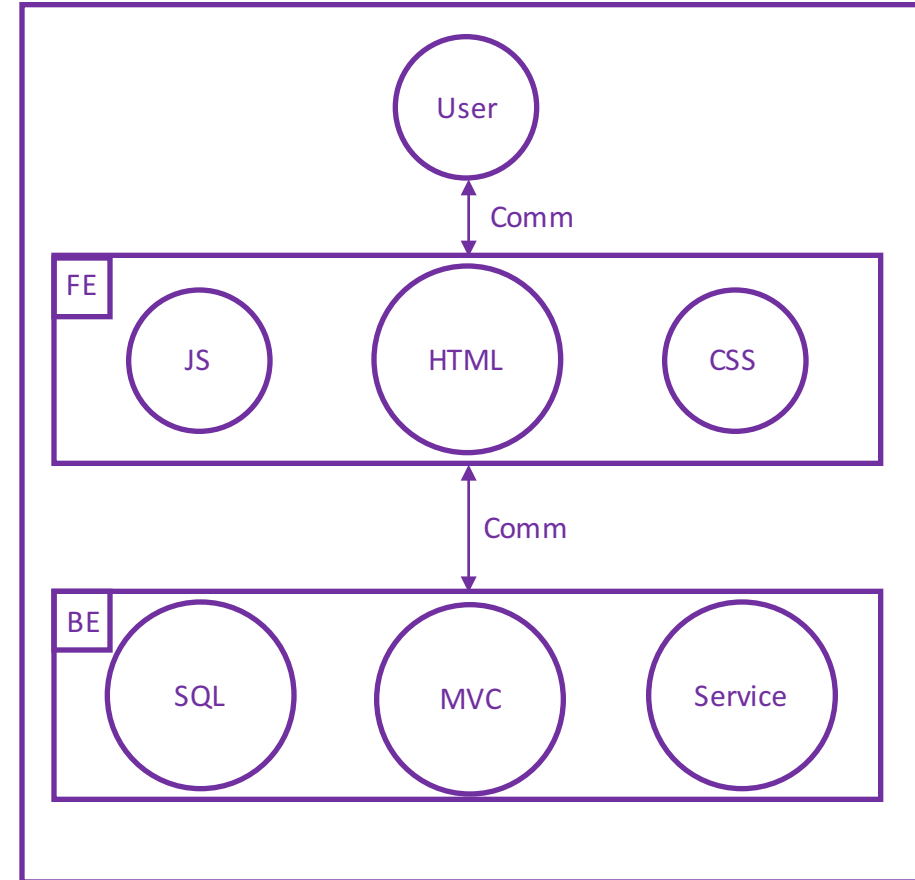Software Engineer
@ariefdfaltah

Web App Architecture

Monolith Architecture.

Client-Server Architecture

REST API

REST
Representational State Transfer

API
Application Programming Interface

JSON
JavaScript Object Notation

Case
Nasi Goreng Bakso

Please Give Me One Nasi Goreng Bakso

Menu

- Nasi Goreng Ayam
- Nasi Goreng Teri
- Nasi Goreng Sosis

Menu

- Mie Ayam Bakso
- Mie Ayam Ceker
- Mie Ayam Pangsit

Using REST

- Please Give Me Nasi Goreng Ayam

  [GET] http://localhost:3000/nasi-goreng-ayam

```
{
        "menu": {
                "name": "nasi-goreng-ayam",
                "main": "nasi",
                "method": "goreng",
                "additional": "ayam"
        }
}
```

- Please Give Me Mie Ayam Bakso

  [GET] http://localhost:3000/mie-ayam-bakso

```
{
        "menu": {
                "name": "mie-ayam-bakso",
                "main": "mie",
                "method": "ayam",
                "additional": "bakso"
        }
}
```

Using REST 2

Please Give Me Nasi Goreng Bakso

```
var order1 = [GET] http://localhost:3000/nasi-goreng-ayam
var order2 = [GET] http://localhost:3000/mie-ayam-bakso

order1.menu.additional = order2.menu.additional

order1 =
    {
            "menu": {
                    "name": "nasi-goreng-ayam",
                    "main": "nasi",
                    "method": "goreng",
                    "additional": "bakso"
            }
    }
```

Data Fetching
of Nasi Goreng Bakso

Please Give Me Nasi Goreng Ayam

[GET] http://localhost:3000/nasi-goreng-ayam

```
{
        "menu": {
                "name": "nasi-goreng-ayam",
                "main": "nasi",
                "method": "goreng",
                "additional": "ayam"
        }
}
```

UNDERFETCHING

Please Give Me Mie Ayam Bakso

[GET] http://localhost:3000/mie-ayam-bakso

```
{
        "menu": {
                "name": "mie-ayam-bakso",
                "main": "mie",
                "method": "ayam",
                "additional": "bakso"
        }
}
```

OVERFETCHING

GraphQL

- Facebook 2012

- Public 2015

- Query Language

- Existing Data

- Power for Client (Frontend)

- Specification

- Schema

- Language Agnostic

GraphQL

- Query
  - List of Data
- Mutation
  - Create Data
  - Update Data
  - Delete Data
- Subscription
  - Real-Time Link
    - Need FrontEnd Magic

GraphQL
& Golang

- https://github.com/gorilla/mux

- https://github.com/graphql-go/graphql

- https://github.com/mfix22/gest

REST > < GraphQL

REST
Error Management(+)
Caching(+)
Authorization(+)

GraphQL
Data Fetching(+)
Versioning(+)
Performance Optimization(+)

THANK YOU

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