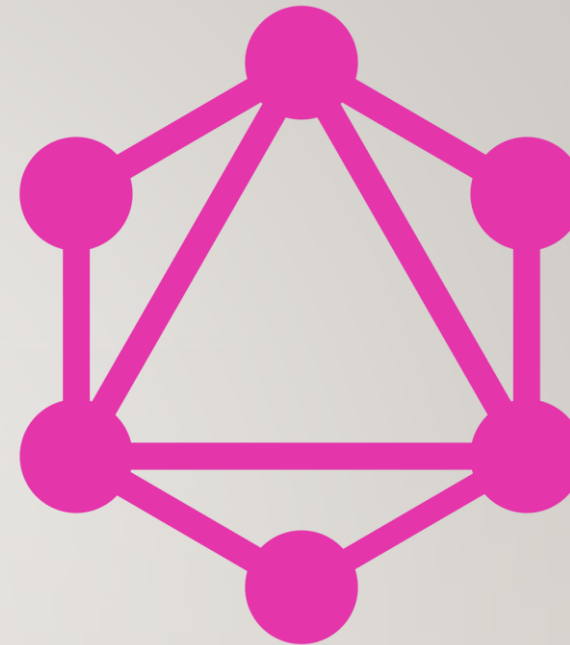


# GRAPHQL

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ENG. MOSTAFA MAHMOUD HELMY

📍 ITI-SMART VILLAGE

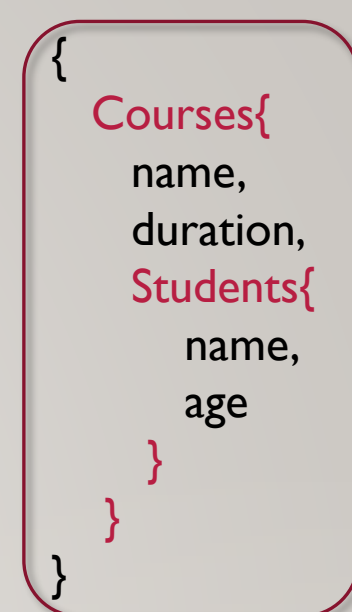
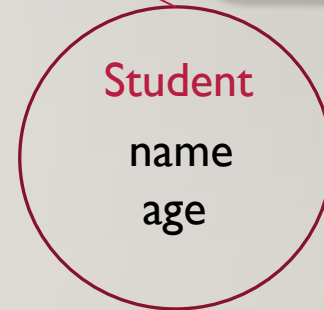
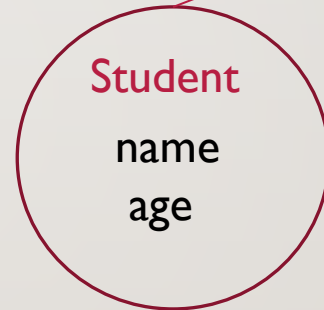
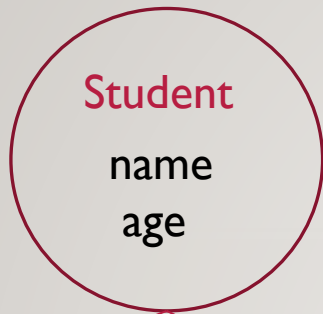
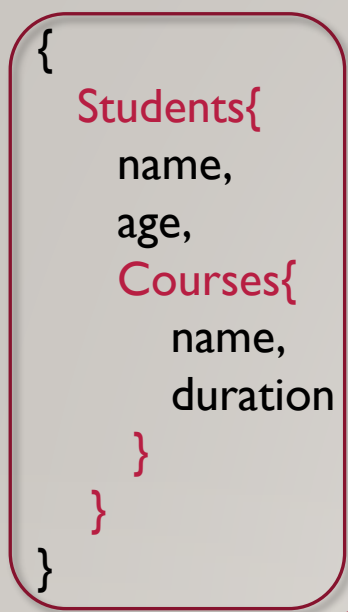
✉️ P.MostafaMahmoud@gmail.com

# Rest API Endpoints

Front

Back





```
{  
  Student(id:2){  
    name,  
    age,  
    Courses{  
      name,  
      duration  
    }  
  }  
}
```

Student  
name  
age

course  
name  
duration

course  
name  
duration

```
{  
  Course(id:3){  
    name,  
    duration,  
    Students{  
      name,  
      age  
    }  
  }  
}
```

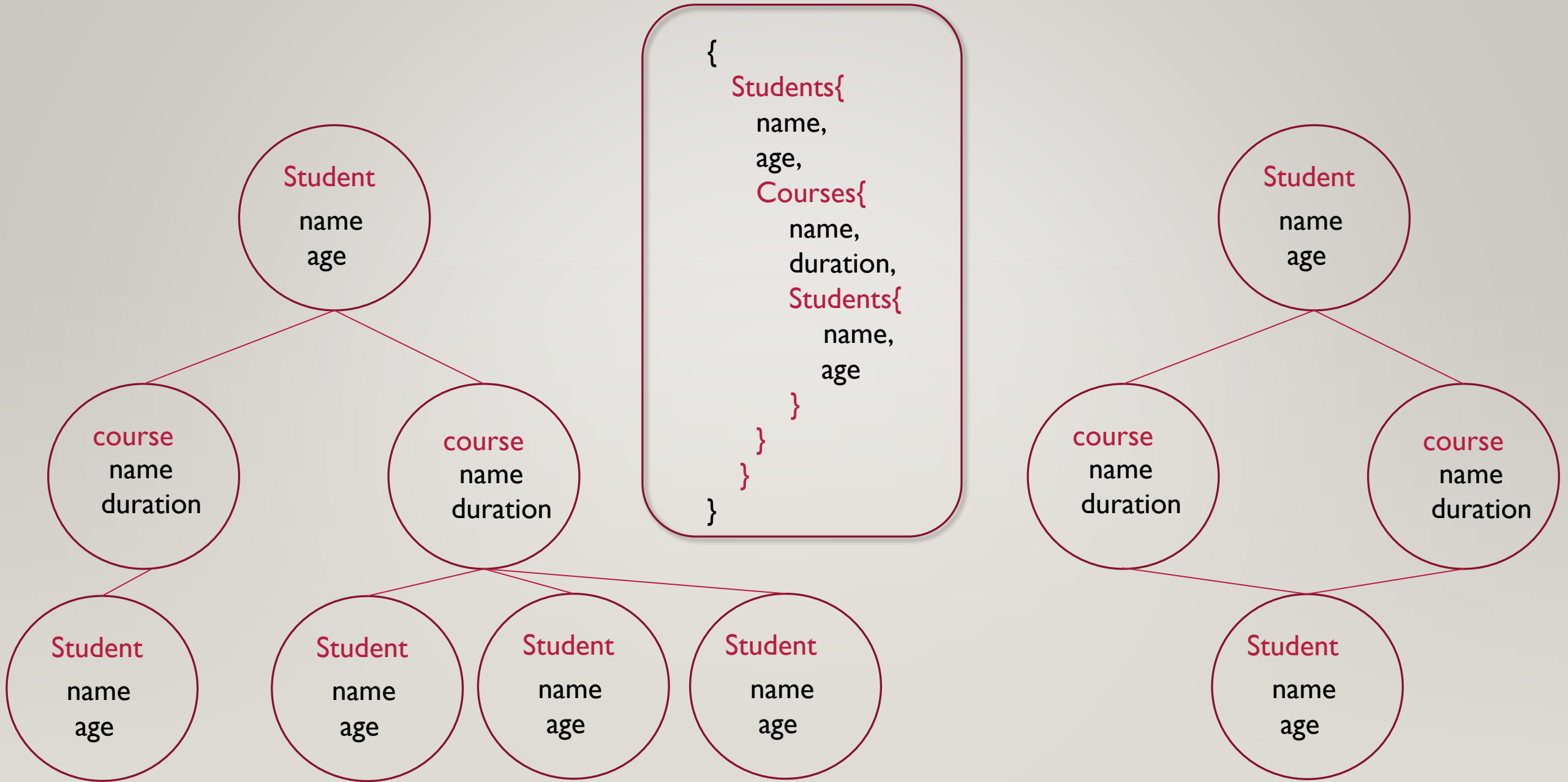
course  
name  
duration

Student  
name  
age

Student  
name  
age

Student  
name  
age





# API [Graph QL]

Front & ApolloClient

[Angular - React - .....]

Write Queries

```
Students{  
  name  
}  
Student(id:"1"){  
  name  
}
```

Req

Res

(Schema)

{ } : GraphQLSchema

Root Query

{ query: rootquery }

Nodejs, Express, GraphQL

RootQuery

{ } : GraphQLObjectType

```
{  
  name:"",  
  desc:"",  
  fields:()=>({  
    students:  
      {type,desc,resolve:()=>={ } },  
    student:  
      {type,desc,args,resolve:()=>={ } },  
    courses:  
      {type,desc,resolve:()=>={ } },  
    course:  
      {type,desc,args,resolve:()=>={ } },  
    .....  
  })  
}
```

List

one

List

one

StudentType

{ } : GraphQLObjectType

```
{  
  name:"",  
  desc:"",  
  fields:()=>({  
    id:{type:},  
    name:{type},  
    ....  
  })  
}
```

CourseType

{ } : GraphQLObjectType

```
{  
  name:"",  
  desc:"",  
  fields:()=>({  
    id:{type:},  
    name:{type},  
    ....  
  })  
}
```

DB

MongoDB  
SQL  
...

## Steps

1) Install NodeJs, npm

a) <https://nodejs.org/en/download/>

### Node

- 1) npm i express
- 2) npm i express-graphql (MiddleW)
- 3) npm i graphql (DataTypes)
- 4) npm i nodemon -g
- 5) npm i mongoose
- 6) npm i cors
  - a) `var cors = require("cors");`
  - b) `app.use(cors());`

### React

- 1) npm i @apollo/client
  - (ApolloProvider [redux])
  - (ApolloClient [url])
  - (gql => queries )
  - (useQuery - useMutation) [hooks]
- 2) npm i graphql@16.6.0
- 3) npm i react-apollo
  - (graphql [connect][redux])