Back-End Development

Connecting

#13a Express & MySQL

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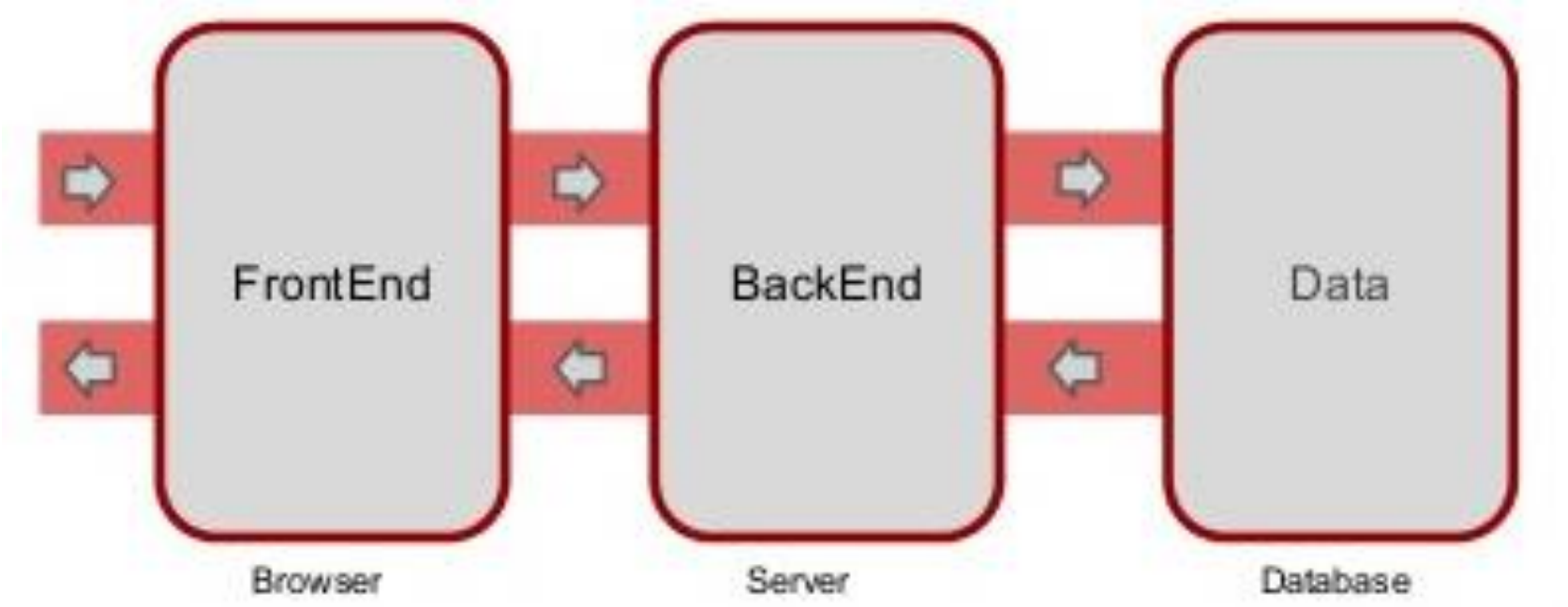
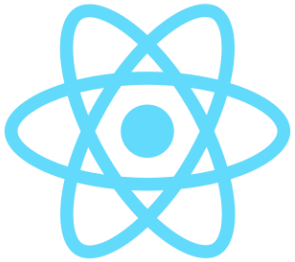
Web App Architecture





#1 Activate MySQL Server

- Via command prompt, go to mysql.exe directory ***C:\Program Files\MySQL\MySQL Server 5.7\bin*** then execute:

```
$ mysql.exe --user=lintang --password=12345
```

- Create database, table & insert an initial data:

```
$ CREATE DATABASE toko;

$ CREATE TABLE karyawan(
  nama VARCHAR(30),
  usia SMALLINT);

$ INSERT INTO karyawan VALUES('Andi',24);
```

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#2 Install MySQL Package

- MySQL package is a Node.JS driver for MySQL database. It's written in JavaScript, doesn't require compiling & 100% MIT licensed.
- More info: *npmjs.com/package/mysql*
- On project dir, install MySQL package:

```
$ npm install mysqljs/mysql
```

** *your internet connection must be good enough while installing and/or using this package!*

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Using MySQL Package

1# Select All Data

```
const mysql = require('mysql');

const db = mysql.createConnection({
    host : 'localhost',
    user : 'lintang',
    password : '12345',
    database : 'toko'
});

db.connect();

var sql = 'SELECT * FROM karyawan';
db.query(sql, (err, result)=>{
    if(err) throw err;
    console.log(result);
});

db.end();
```

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Using MySQL Package

2# Select Specific Data

```
const mysql = require('mysql');
const db = mysql.createConnection({
    host : 'localhost',
    user : 'lintang',
    password : '12345',
    database : 'toko'
});

db.connect();

var nama = 'Andi';
var sql = 'SELECT * FROM karyawan WHERE nama = ?';
db.query(sql, nama, (err, result)=>{
    if(err) throw err;
    console.log(result);
});

db.end();
```

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Using MySQL Package

3# Insert Data

```
const mysql = require('mysql');
const db = mysql.createConnection({
    host : 'localhost',
    user : 'lintang',
    password : '12345',
    database : 'toko'
});

db.connect();

var data = {nama:"Dedi", usia:23};
var sql = 'INSERT INTO karyawan SET ?';
db.query(sql, data, (err, result)=>{
    if(err) throw err;
    console.log(result);
});

db.end();
```

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Using MySQL Package

4# Delete Data

```
const mysql = require('mysql');
const db = mysql.createConnection({
    host : 'localhost',
    user : 'lintang',
    password : '12345',
    database : 'toko'
});

db.connect();

var nama = 'Budi';
var sql = 'DELETE from karyawan WHERE nama=?';
db.query(sql, nama, (err, result)=>{
if(err) throw err;
console.log(result);
});

db.end();
```

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Using MySQL Package

5a# Update Data

```
const mysql = require('mysql');
const db = mysql.createConnection({
   host : 'localhost',
   user : 'lintang',
   password : '12345',
   database : 'toko'
});

db.connect();

var nama = 'Andi';
var sql = 'UPDATE karyawan SET nama="Zizi" WHERE nama=?';
db.query(sql, nama, (err, result)=>{
if(err) throw err;
console.log(result);
});

db.end();
```

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Using MySQL Package

5b# Update Data

```
const mysql = require('mysql');
const db = mysql.createConnection({
   host : 'localhost',
   user : 'lintang',
   password : '12345',
   database : 'toko'
});

db.connect();

var x = 'Yaya';
var y = 'Caca'
var sql = 'UPDATE karyawan SET nama=? WHERE nama=?';
db.query(sql, [x,y], (err, result)=>{
if(err) throw err;
console.log(result);
});

db.end();
```

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Express & MySQL

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Express & MySQL

#Basic

```
const express = require('express');
const app = express();
const mysql = require('mysql');

const db = mysql.createConnection({
      host : 'localhost',
      user : 'lintang',
      password : '12345',
      database : 'toko'
});

db.connect();

# # # # # # route here # # # # # #

app.listen(3000, ()=>{
console.log('Server @port 3000')
});
```

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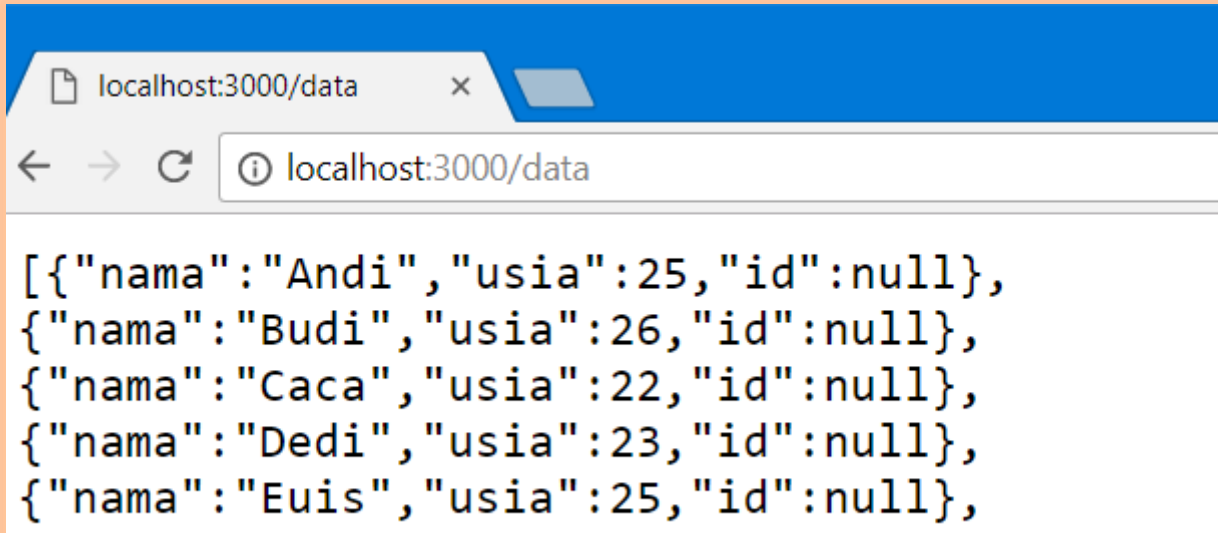
Express & MySQL

#GET Route to Select All Data

```
app.get('/data', function(req,res){
  var sql = 'SELECT * FROM karyawan';
  db.query(sql, (err, result)=>{
    if(err) throw err;
    console.log(result);
    res.send(result);
  });
});
```



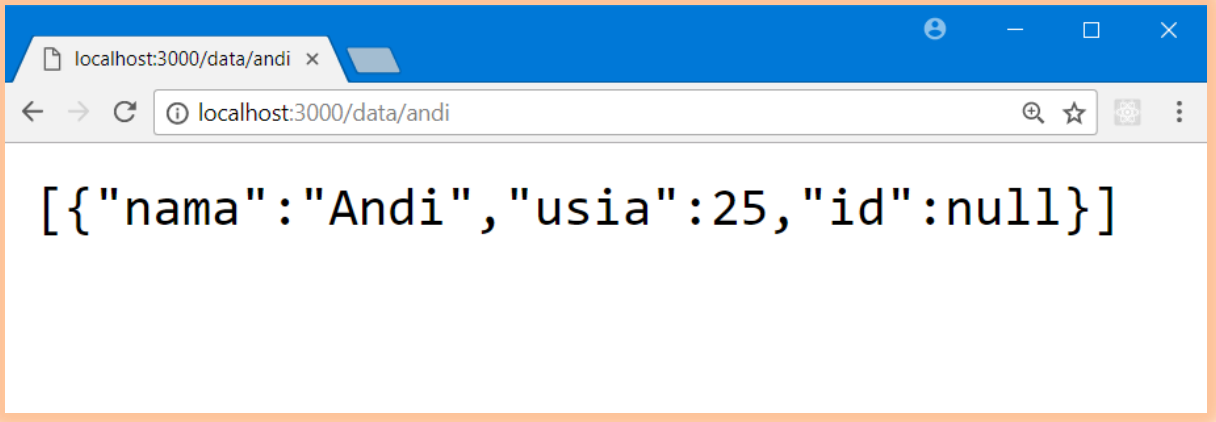
Express & MySQL

#GET Route to Select Spesific Data

```
app.get('/data/:id', function(req,res){

var sql = `SELECT * FROM karyawan WHERE nama =
'${req.params.id}'`;

db.query(sql, (err, result)=>{
    if(err) throw err;
    console.log(result);
    res.send(result);
});
});
```

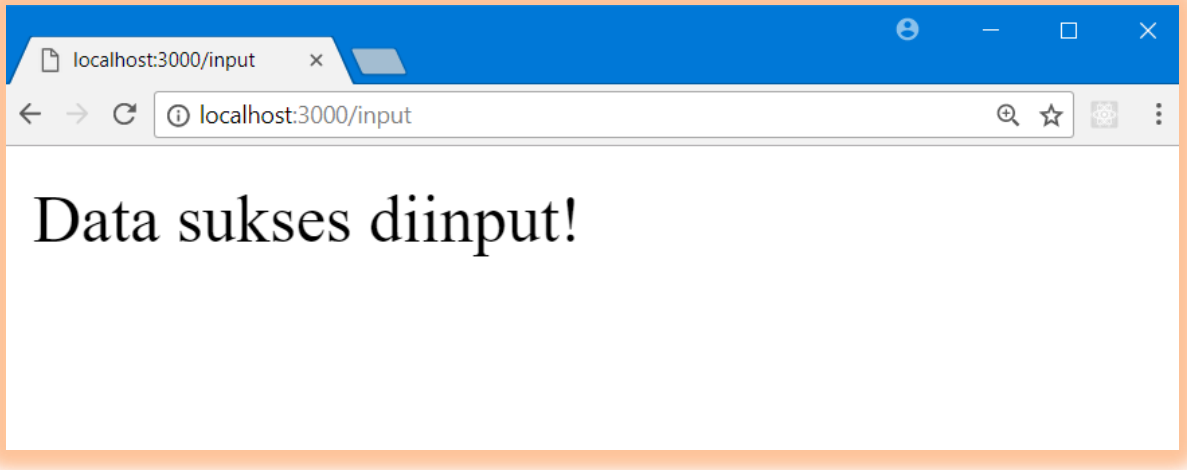


Express & MySQL

#GET Route to Insert Data

```
app.get('/input', function(req,res){
  var data = {nama:"Siti", usia:21};
  var sql = 'INSERT INTO karyawan SET ?';
  db.query(sql, data, (err, result)=>{
    if(err) throw err;
    console.log(result);
    res.send('Data sukses diinput!')
  });
});
```

Then see data on /data or MySQL!



Express & MySQL Hosting

Free MySQL Hosting

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