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PRAKTIKUM SISTEM BASIS DATA

Modul ke-8

CS

Create database yogie_10;

\c yogie_10;

```
postgres=# create database yogie_10;
CREATE DATABASE
postgres=# \c yogie_10;
You are now connected to database "yogie_10" as user "postgres".
yogie_10=#
```

1. Buat tabel

```
create table users (
id serial primary key,
username varchar(20) unique not null,
password text not null,
is_admin boolean not null
);
```

```
create table data_covid (
id serial primary key,
kota varchar(20) unique not null,
jumlah_kasus int not null
);
```

```
yogie_10=# create table users (
yogie_10(# id serial primary key,
yogie_10(# username varchar(20) unique not null,
yogie_10(# password text not null,
yogie_10(# is_admin boolean not null
yogie_10(# );
CREATE TABLE
yogie_10=#
yogie_10=# create table data_covid (
yogie_10(# id serial primary key,
yogie_10(# kota varchar(20) unique not null,
yogie_10(# jumlah_kasus int not null
yogie_10(# );
CREATE TABLE
yogie_10=#
```



2. Masukkan 3 data bebas

insert into data_covid (kota, jumlah_kasus) values

('Jakarta', 180),

('Bogor', 614),

('Bandung', 8851);

```
yogie_10=# insert into data_covid (kota, jumlah_kasus) values
yogie_10-# ('Jakarta', 180),
yogie_10-# ('Bogor', 614),
yogie_10-# ('Bandung', 8851);
INSERT 0 3
```

3. npm install --save express

npm install --save express-session

```
C:\Users\pc\Documents\sbd\server>npm install --save express

> bcrypt@5.0.0 install C:\Users\pc\Documents\sbd\server\node_modules\bcrypt
> node-pre-gyp install --fallback-to-build

node-pre-gyp WARN Using needle for node-pre-gyp https download
[bcrypt] Success: "C:\Users\pc\Documents\sbd\server\node_modules\bcrypt\lib\binding\napi-v3\bcrypt_lib.node" is installed via remote

> nodemon@2.0.6 postinstall C:\Users\pc\Documents\sbd\server\node_modules\nodemon
> node bin/postinstall || exit 0

Love nodemon? You can now support the project via the open collective:
> https://opencollective.com/nodemon/donate

npm WARN server@1.0.0 No description
npm WARN server@1.0.0 No repository field.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.1.3 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.1.3: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

+ express@4.17.1
added 247 packages from 193 contributors and audited 248 packages in 6.129s

15 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\pc\Documents\sbd\server>npm install --save express-session

npm WARN server@1.0.0 No description
npm WARN server@1.0.0 No repository field.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.1.3 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.1.3: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

+ express-session@1.17.1
updated 1 package and audited 248 packages in 1.899s

15 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```



npm install --save body-parser

npm install --save bcrypt

```
C:\Users\pc\Documents\sbd\server>npm install --save body-parser
npm WARN server@1.0.0 No description
npm WARN server@1.0.0 No repository field.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.1.3 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.1.3: wanted {"os":"darwin","arch":
:"any"} (current: {"os":"win32","arch":"x64"})

+ body-parser@1.19.0
updated 1 package and audited 248 packages in 1.29s

15 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\pc\Documents\sbd\server>npm install --save bcrypt

> bcrypt@5.0.0 install C:\Users\pc\Documents\sbd\server\node_modules\bcrypt
> node-pre-gyp install --fallback-to-build

node-pre-gyp WARN Using needle for node-pre-gyp https download
[bcrypt] Success: "C:\Users\pc\Documents\sbd\server\node_modules\bcrypt\lib\binding\napi-v3\bcrypt_lib.node" is ins
talled via remote
npm WARN server@1.0.0 No description
npm WARN server@1.0.0 No repository field.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.1.3 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.1.3: wanted {"os":"darwin","arch":
:"any"} (current: {"os":"win32","arch":"x64"})

+ bcrypt@5.0.0
updated 1 package and audited 248 packages in 4.79s

14 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```

npm install --save pg

```
C:\Users\pc\Documents\sbd\server>npm install --save pg
npm WARN server@1.0.0 No description
npm WARN server@1.0.0 No repository field.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.1.3 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.1.3: wanted {"os":"darwin","arch":
:"any"} (current: {"os":"win32","arch":"x64"})

+ pg@8.5.1
updated 1 package and audited 248 packages in 2.058s

14 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```



4. client connect

```
//Inisiasi koneksi ke database
const db = new Client({
  user: "postgres",
  password: "",
  host: "localhost",
  port: 5432,
  database: "yogie_10"
});
```

Log jika terhubung

```
db.connect((err) =>{
  if (err) {
    console.error(err);
    return;
  }
  console.log('Database Connected');
});
```

```
C:\Users\pc\Documents\sbd\server>node index.js
App Started on PORT 3000
Database Connected
```

5. masukkan query

```
const query = `select * from data_covid`;
db.query(query, (err, results) => {
  if (err) {
    console.error(err.detail);
    res.send(err.detail)
    return;
  }
})
```

6. registrasi, hashing, dan error

```
$.post('/register', { username: username, pass: pass }, function(data) {
  if (data === 'done') {
    window.location.href = '/admin';
    window.alert('Registrasi Sukses');
  }
  if (data === 'err') {
    window.location.href = '/';
    window.alert('Registrasi Gagal');
  }
});
```



```
router.post('/register', (req, res) => {
  temp = req.session;
  temp.username = req.body.username;
  temp.password = req.body.pass;
  //melakukan registrasi user baru ke dalam database
  try {
    if (temp.username == '' || temp.password == '') {
      res.end('err');
      return res.status(403).send("tidak boleh kosong");
    }
    const hashedPass = bcrypt.hash(temp.password, 10, function (err, hashedPass) {
      const signUp =
        `INSERT INTO users(username, password, is_admin) VALUES ('${temp.username}',
        '${hashedPass}', false)`;
      db.query(signUp, (err, results) => {
        if (err) {
          console.error(err);
          res.end('err');
          return;
        }
      });
      console.log(`data '${temp.username}' berhasil diregistrasi`);
      res.end('done');
    });
  }
  catch (error) {
    console.error(err.message);
    res.status(403).send("Error data");
  }
});
```

localhost:3000 says

Registrasi Gagal

OK

7. a

8. welcome

```
res.write([
  `<h1> Welcome ${temp.username} </h1>`
  <a> Jumlah kunjungan ${temp.visits}</a>
  <h5>Refresh page to increase visits</h5>
```



9. npm start

```
C:\Users\pc\Documents\sbd\server>npm start

> server@1.0.0 start C:\Users\pc\Documents\sbd\server
> nodemon index.js

[nodemon] 2.0.6
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,json
[nodemon] starting `node index.js`
App Started on PORT 3000
Database Connected
```

Modul 10 - SBD

localhost:3000

Pusat Data Covid

Login

Username:

Password:

Submit

Register

Username:

Password:

Submit

Modul 10 SBD

10. registrasi

```
localhost:3000 says
Registrasi Sukses
OK
```

```
App Started on PORT 3000
Database Connected
data 'Yogie' berhasil diregistrasi
```

```
yogie_10=# select * from users;
 id | username | password | is_admin
-----+-----+-----+-----
  9 | Yogie    | $2b$10$3vtf5y33CTNeeSJQm2lBNemybxr9NVSwmsXcLnAY5EM4qfxey/bwe | f
(1 row)
```



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