

Tugas Exam

3.1. Menampilkan Nama, Tanggal Lahir, Jenis Kelamin dan Email dari Employee.

a. query

```
select employee.name as 'Nama', employee.birth_date as 'Tanggal Lahir', employee.gender as 'Jenis Kelamin', employee.email as 'email' FROM employee
```

b. Hasil

Showing rows 0 - 20 (21 total, Query took 0.0005 seconds.)

```
select employee.name as 'Nama', employee.birth_date as 'Tanggal Lahir', employee.gender as 'Jenis Kelamin', employee.email as 'email' FROM employee
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

				Nama	Tanggal Lahir	Jenis Kelamin	email
<input type="checkbox"/>	Edit	Copy	Delete	Muhamad Alfian Widjaya	1999-11-05	Laki-laki	alfianmuhammad34@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Nurlailani Sabrina Desie	1997-12-29	Perempuan	nurlailanisid@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Eri Dwi Atmoko	1997-12-28	Laki-laki	eridwiatmoko@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Mochammad Randika Hasanudin	1999-10-23	Laki-laki	mochammadrandika@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Mutiara Bela Tista	2001-06-19	Perempuan	mutiarabela19@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Lidya Adinda Rosyadi	2000-02-07	Perempuan	lidyadinda07@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Muhammad Ridluanulloh	2000-01-21	Laki-laki	mridluan21@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Kahfi Kurnia Aji	2000-09-17	Laki-laki	kahfikurniaaji@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Reza Rismawandi	1999-01-01	Laki-laki	Xreza75@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Adi Susatyo Prabowo	1997-08-09	Laki-laki	adisupra207@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Alfian Reza Pahlevi	1994-09-12	Laki-laki	alfianrp12@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Miftahul Fauza Ridhoi	2000-01-16	Laki-laki	ridhofauza799@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Izzan Radhi Mafazi	1995-04-03	Laki-laki	izzanradhi@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Irvan Ramadan	1995-02-28	Laki-laki	srvahn@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Arfan Dwi Sukmajaya	1999-11-21	Laki-laki	jayaarfan92@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Andi Nugroho	1996-08-07	Laki-laki	andinugroho2020@gmail.com
<input type="checkbox"/>	Edit	Copy	Delete	Rivaldo Effendi	2000-07-02	Laki-laki	rival.root0@gmail.com

Console

3.2. Menampilkan Nama, No HP dan LinkedIn.

a. query

```
select employee.name as 'Nama', contact.phone as 'Nomor HP', contact.linkedin as 'LinkedIn' FROM employee JOIN contact on employee.id = contact.id;
```

b. Hasil

Showing rows 0 - 20 (21 total, Query took 0.0006 seconds.)

```
select employee.name as 'Nama', contact.phone as 'Nomor HP', contact.linkedin as 'Linkedin' FROM employee JOIN contact on employee.id = contact.id;
```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

☐ Show all | Number of rows: 25 | Filter rows: | Sort by key: None

Extra options

Nama	Nomor HP	Linkedin
Muhamad Alfian Widjaya	85773113530	https://www.linkedin.com/in/muhamad-alfian-widjaya...
Nurlailani Sabrina Desie	85785341829	https://www.linkedin.com/in/nurlailanisid/
Eri Dwi Atmoko	8987222611	https://www.linkedin.com/in/eridwiatmoko/
Mochammad Randika Hasanudin	89622485159	https://www.linkedin.com/in/mochammad-randika-hasa...
Mutiara Bela Tista	85764612697	https://www.linkedin.com/Home/
Lidya Adinda Rosyadi	89662114320	https://www.linkedin.com/in/lidyadindar/
Muhammad Ridluanulloh	89636054294	https://www.linkedin.com/in/muhammadridluan/
Kahfi Kurnia Aji	85721476789	https://www.linkedin.com/in/kahfikurniaaji/
Reza Rismawandi	83115976293	https://www.linkedin.com/Home/
Adi Susatyo Prabowo	85838269106	https://www.linkedin.com/in/adi-susatyo-prabowo-38...
Alfian Reza Pahlevi	85736170222	https://www.linkedin.com/in/alfianrp12/
Miftahul Fauza Ridhoi	89680130281	https://www.linkedin.com/in/miftahulfr/
Izzan Radhi Mafazi	85714217813	https://www.linkedin.com/in/izzanradhimafazi/
Irvan Ramadan	85645723316	https://www.linkedin.com/in/irvan-ramadan/
Arfan Dwi Sukmajaya	82289542298	https://www.linkedin.com/in/arfandwisukmajaya/
Andi Nugroho	81999519002	https://www.linkedin.com/in/andinugroho258/
Rivaldo Effendi	87798027720	https://www.linkedin.com/Home/
Ahmad Abuya	8979138135	https://www.linkedin.com/Home/
A M Farouk Hakim	82233328608	https://www.linkedin.com/in/hakimamf/
M. Khoironi	81389441449	https://www.linkedin.com/in/m-khoironi-14b9221b0/
Console / Ibawa	81239597617	https://www.linkedin.com/Home/

3.3. Menampilkan Nama, Alamat Lengkap (Jalan, Desa, Kecamatan, Kota/Kabupaten, Provinsi, Kode Pos) sesuai dengan format alamat Indonesia.

a. query

```
select employee.name, concat (
    address.street1,
    " Desa ", village.name,
    " Kec. ", subdistrict.name,
    " Kota/Kab. ", district.city,
    " Provinsi ", province.name) as 'Alamat' FROM
employee join address on employee.id = address.id
JOIN village on address.village = village.id
join subdistrict on village.subdistrict = subdistrict.id
join district on subdistrict.district = district.id
join province on district.province = province.id
```

b. Hasil

Showing rows 0 - 20 (21 total, Query took 0.0014 seconds)

```

select employee.name, concat ( address.street1, " Desa ", village.name, " Kec. ", subdistrict.name, " Kota/Kab. ", district.city, " Provinsi ", province.name) as 'Alamat' FROM employee join address on employee.id = address.id
JOIN village on address.village = village.id join subdistrict on village.subdistrict = subdistrict.id join district on subdistrict.district = district.id join province on district.province = province.id;

```

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Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

name	Alamat
Muhamad Alfian Widjaya	JL. Jengki Cipinang Asem Rt 004 Rw 02 NO 06 Desa K...
Mochammad Randika Hasanudin	Jl. Mangga 6 Desa Utan Kayu Utara Kec. matraman Ko...
Izzan Radhi Mafazi	Jl. Bandeng Raya Desa Jati Kec. Puloagung Kota/Ka...
Nurtallani Sabrina Desie	Vila Nusa Indah I, Jl. Cempaka Raya, Blok M4/6 Des...
Eri Dwi Atmoko	Jl. Nyomplong Gg. berdikari Rt. 05 Rw. 06 Desa Ben...
Lidya Adinda Rosyadi	Jl. Danau Tondano 1 No 1, RT 05 RW 03 Desa Abadija...
Kahfi Kurnia Aji	Jl. Lebak II, RT 5 RW 5 Desa Kebonwaru Kec. Bandun...
Andi Nugroho	Jl.Panorama IV blok D no. 10 RT04RW05 Desa Sarliwang...
Mutiara Bela Tista	Jl. Nibung VI No 418, RT. 22/RW. 04. Kec. Sako Des...
Muhammad Riduanulloh	Jl. Cipto Mangunkusumo No.30 LK 1, RT.008/RW 01 De...
Reza Rismawandi	Jl. Raya senggigi dusun loco Desa Senggigi Kec. Ma...
Miftahul Fauza Ridhoi	Jl. Kelud, RT11/RW03 Desa Takeran Kec. Takeran Kot...
Adi Susatyo Prabowo	Jl. Lamongan 1 RT/RW 02/02 Desa Bendan Nglor Kec...
Alfian Reza Pahlevi	Sumur Pandan RT 03/RW 08 Desa Jakek Kec. Baron Kot...
Irvan Ramadan	Jl. MT Haryono no V RT/RW 01/04 Desa Bago Kec. Tul...
M. Khoironi	Jl. Sayyid Ismail Desa Janti Kec. Jogoroto Kota/K...
Arfan Dwi Sukmajaya	Jl poros mampun baru Desa Pining Merah Kec. Pamen...
Thulida Rifandi	Jl. Amallun Desa Kota Matsum Kec. Madan Area Kota/...

3.4. Menampilkan Nama, Edukasi (contoh format S1 – Teknik Informatika – Universitas Kristen Satya Wacana).

a. query

```

SELECT employee.name as 'Nama', concat(education.degree, "-", major.name, "-", university.name) as 'Edukasi' FROM employee JOIN education on employee.id = education.id
join major on education.major = major.id JOIN university on education.university = university.id

```

b. Hasil

Showing rows 0 - 20 (21 total, Query took 0.0132 seconds)

```

SELECT employee.name as 'Nama', concat(education.degree, "-", major.name, "-", university.name) as 'Edukasi' FROM employee JOIN education on employee.id = education.id join major on education.major = major.id JOIN university on education.university = university.id;

```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

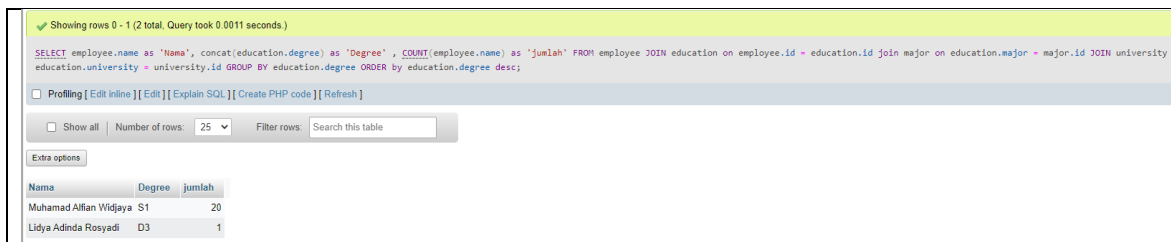
Nama	Edukasi
Muhamad Alfian Widjaya	S1-Teknik Industri-Universitas Gunadarma
Eri Dwi Atmoko	S1-Teknik Informatika-Universitas Komputer Indones...
Kahfi Kurnia Aji	S1-Teknik Informatika-Universitas Widyatama
Reza Rismawandi	S1-Teknik Informatika-Universitas Mataram
Nurtallani Sabrina Desie	S1-Teknik Informatika-Universitas Bravijaya
A.M Farouk Hakim	S1-Teknik Informatika-Universitas Bravijaya
Miftahul Fauza Ridhoi	S1-Teknik Informatika-Universitas PGRI Madun
M. Khoironi	S1-Teknik Informatika-UPN Veteran Jawa Timur
Arfan Dwi Sukmajaya	S1-Teknik Informatika-UPI YPTK Padang
Ahmad Abuya	S1-Teknik Informatika-Universitas Muhammadiyah Tan...
Mochammad Randika Hasanudin	S1-Sistem Informasi-Universitas Nusa Mandiri
Mutiara Bela Tista	S1-Sistem Informasi-Institut Teknologi dan Bisnis ...
Lidya Adinda Rosyadi	D3-Teknik Elektro-Politeknik Negeri Jakarta
Muhammad Riduanulloh	S1-Teknik Elektro-Institut Teknologi Sumatera
Andi Nugroho	S1-Teknik Elektro-Universitas Jenderal Achmad Yani
Adi Susatyo Prabowo	S1-Teknik Mesin-Universitas Muhammadiyah Yogyakarta...
Alfian Reza Pahlevi	S1-Teknik Komputer-Universitas Gunadarma
Irvan Ramadan	S1-Teknik Komputer-Universitas Bravijaya
Izzan Radhi Mafazi	S1-Teknik Telekomunikasi-Telkom University
Thulida Rifandi	S1-Pendidikan Teknologi Informatika dan Komputer-U...

3.5. Menampilkan Jumlah Karyawan berdasarkan Tingkat Pendidikan (Degree) diurutkan dari yang paling tinggi.

a. query

```
SELECT employee.name as 'Nama', concat(education.degree) as 'Degree' ,  
COUNT(employee.name) as 'jumlah' FROM employee JOIN education on employee.id =  
education.id join major on education.major = major.id JOIN university on education.university  
= university.id GROUP BY education.degree ORDER by education.degree desc;
```

b. Hasil



Showing rows 0 - 1 (2 total. Query took 0.0011 seconds.)

```
SELECT employee.name as 'Nama', concat(education.degree) as 'Degree' , COUNT(employee.name) as 'jumlah' FROM employee JOIN education on employee.id = education.id join major on education.major = major.id JOIN university on education.university = university.id GROUP BY education.degree ORDER by education.degree desc;
```

☐ Profiling ☐ Edit inline ☐ Edit ☐ Explain SQL ☐ Create PHP code ☐ Refresh

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

Nama	Degree	jumlah
Muhamad Aflhan Widjaya	S1	20
Lidya Adinda Rosyadi	D3	1

4.1. Menginput data Employee dengan data sebagai berikut :

- Nama
- Tanggal Lahir
- Jenis Kelamin
- Email
- Tingkat Pendidikan
- Nama Jurusan
- Nama Universitas

*Jika data Jurusan / Universitas sudah ada maka menggunakan data tersebut, jika belum ada lakukan insert pada Jurusan / Universitas dan kemudian gunakan sbg Foreign Key.

a. query

DELIMITER Reza

```
CREATE PROCEDURE add_employee (  
    in nama varchar(50),  
    in tgl_lahir date,  
    in gender varchar(25),  
    in email varchar(50),  
    in degree varchar(25),  
    in jurusan varchar(50),  
    in univ varchar(50)  
) BEGIN
```

```

IF((SELECT COUNT(*) FROM major WHERE name = jurusan) = 0) THEN
    SELECT max(id) from major into @halo;
    INSERT into major VALUES (@halo+1,jurusan, 0);
    SELECT last_insert_id() INTO @major1;
else SELECT id from major where name = jurusan into @major1;
end IF;

IF((SELECT COUNT(*) FROM university WHERE name = univ) = 0) THEN
    SELECT max(id) from university into @halo2;
    INSERT into university VALUES (@halo2+1,univ, 0);
    SELECT last_insert_id() INTO @univer;
else SELECT id from university where name = univ into @univer;
end IF;

SELECT get_empid() INTO @user;
INSERT INTO employee VALUES (@user, nama, tgl_lahir, gender, email);
INSERT INTO education VALUES (@user,degree, @major1,@univer);
end Reza

```

b. hasil

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0354 seconds.)

```
CALL add_employee ('Reza', '2022-01-03', 'Laki-laki', 'a@b.c', 'S1', 'Teknik Baru', 'Universitas Baru');
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

* Employee.id menggunakan auto increment, silahkan cari mengenai sequences.

4.2. Mengupdate data Address dan Contact dengan data sebagai berikut :

- Id Karyawan
- Alamat (Street1)
- Alamat (Street2)
- Id Desa
- Nomor Telepon
- Linked In

a. query

```

DELIMITER Reza

CREATE PROCEDURE update_data (
    in idu varchar(5),
    in alamat1 varchar(255),
    in alamat2 varchar(255),
    in desa int,
    in nomor varchar(15),
    in link varchar(50)

```

```

) BEGIN
    UPDATE contact set phone=nomor, linkedin=link where id = idu;
    UPDATE address set street1=alamat1, street2=alamat2, village= desa where id =
    idu;
end Reza

```

b. hasil

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0104 seconds.)

```

call update_data('E0009', 'alamat baru', null, 10007, '0811111111', 'http://link');

```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

5. Buatlah Function untuk :

5.1. Mengembalikan Edukasi (contoh format S1 – Teknik Informatika – Universitas Kristen

Satya Wacana) berdasarkan email yang inputkan.

a. query

```

DELIMITER Reza

CREATE FUNCTION get_edu (
    e_mail varchar(50)
) RETURNS varchar(100)
BEGIN
    SELECT concat(education.degree,'-',major.name,'-',university.name) as Education
    FROM education join major on education.major = major.id join university on
    education.university = university.id where education.id = (SELECT id FROM employee
    where email = e_mail) INTO @edu;
    RETURN @edu;
end Reza

```

b. hasil

✓ Showing rows 0 - 0 (1 total, Query took 0.0135 seconds.)

```

SELECT get_edu('xreza75@gmail.com');

```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#)

☐ Show all | Number of rows: 25 ▼ Filter rows:

[Extra options](#)

get_edu('xreza75@gmail.com')
S1-Teknik Informatika-Universitas Mataram

☐ Show all | Number of rows: 25 ▼ Filter rows:

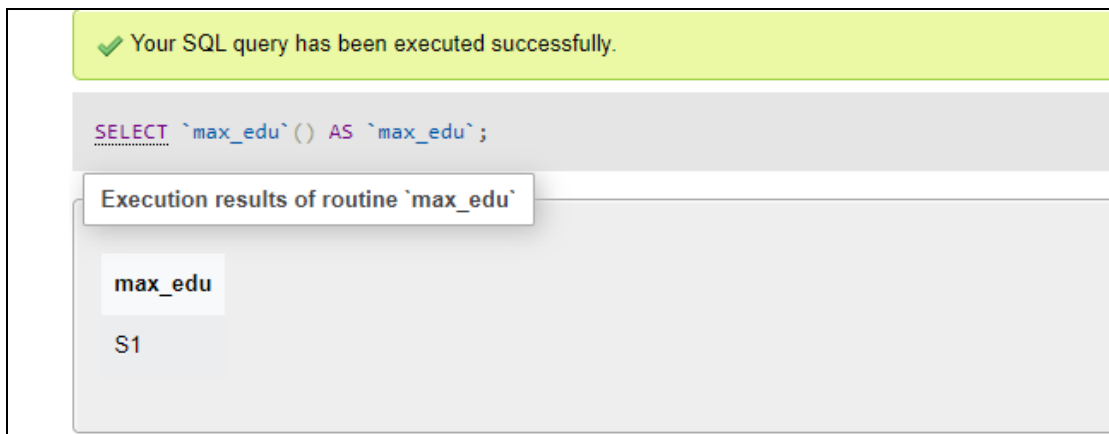
5.2. Mengembalikan Tingkatan Pendidikan dengan karyawan terbanyak (contoh output : S1).

a. query

```
DELIMITER Reza

CREATE FUNCTION max_edu ()
RETURNS varchar(50)
BEGIN
    SELECT education.degree as 'max degree' into @result FROM education
    join employee on education.id = employee.id
    group by education.degree
    order by count(education.degree) desc
    limit 1;
    RETURN @result;
end Reza
```

b. hasil



✓ Your SQL query has been executed successfully.

```
SELECT `max_edu`() AS `max_edu`;
```

Execution results of routine `max_edu`

max_edu
S1

5.3. Mengembalikan Kota/Kabupaten dengan karyawan terbanyak (contoh output : Jakarta Barat)

a. query

```
DELIMITER Reza

CREATE FUNCTION max_district ()
RETURNS varchar(50)
BEGIN
    SELECT district.name into @result FROM district
    JOIN subdistrict on district.id = subdistrict.district
    join village on subdistrict.id = village.subdistrict
    join address on address.village = village.id
    join employee on address.id = employee.id group by district.name
    order by count(district.name) desc
    limit 1;
    RETURN @result;
end Reza
```

b. hasil

✓ Your SQL query has been executed successfully.

```
SELECT `max_district`() AS `max_district`;
```

Execution results of routine `max_district`

max_district
Jakarta Timur

5.4. Mengembalikan Kota/Kabupaten pada Provinsi tertentu dengan karyawan terbanyak

(input : Jakarta, output : Jakarta Barat).

a. query

```
Delimiter Reza
Create function max_district byprov (
  Prov varchar(50)
) Returns varchar(50)
BEGIN
  SELECT district.name into @result FROM district
  JOIN subdistrict on district.id = subdistrict.district
  join village on subdistrict.id = village.subdistrict
  join address on address.village = village.id
  join employee on address.id = employee.id
  where district.province = (SELECT id from province where name = prov)
  group by district.name
  order by count(district.name) desc
  limit 1;
  RETURN @result;
End Reza
```

b. hasil

✓ Showing rows 0 - 0 (1 total, Query took 0.0011 seconds.)

```
SELECT max_district_byprov('Lampung') as Hasil;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

Hasil
Bandar Lampung

✓ Your SQL query has been executed successfully.

```
SET @p0='DKI Jakarta'; SELECT `max_district_byprov`(@p0) AS `max_district_byprov`;
```

Execution results of routine `max_district_byprov`

max_district_byprov
Jakarta Timur

6. Buatlah Trigger :

6.1. Mengupdate major.count jika terjadi insert/update pada table Education.

Query a

```
DELIMITER $$

CREATE TRIGGER before_edumajor_update
AFTER UPDATE
ON sales FOR EACH ROW
if (old.major <> new.major) THEN
    UPDATE major set count = ((SELECT count from major where id = old.major) -1) where id =
old.major;
    UPDATE major set count = (SELECT count from major where id = new.major) +1 where
    id = new.major;
end if;
```

Query b

```
DELIMITER $$

CREATE TRIGGER before_edmajoru_insert
AFTER INSERT
ON sales FOR EACH ROW
if (select count(*) from major where id= new.major >0) THEN
    INSERT into dummy VALUES ('insert major', new.major);
    UPDATE major set count = ((SELECT count from major where id = new.major) +1) where
    id = new.major;
end if;
if (old.university <> new.university) THEN
    UPDATE major set count = (SELECT count from major where id = old.university) -1 where
    id = old.university;
    UPDATE major set count = (SELECT count from major where id = new.university) +1 where
    id = new.university;
end if;
```

6.2. Mengupdate university.count jika terjadi insert/update pada table Education.

Query a

```
DELIMITER $$

CREATE TRIGGER before_eduniv_update
AFTER UPDATE
ON sales FOR EACH ROW
if (old.university <> new.university) THEN
    UPDATE major set count = (SELECT count from major where id = old.university) -1 where
        id = old.university;
    UPDATE major set count = (SELECT count from major where id = new.university) +1 where
        id = new.university;
end if;
```

Query b

```
DELIMITER $$

CREATE TRIGGER before_eduniv_insert
AFTER INSERT
ON sales FOR EACH ROW
if (select count(*) from university where id= new.university >0) THEN
    INSERT into dummy VALUES ('insert university', new.university);
    UPDATE university set count = ((SELECT count from major where id = new.university) +1 )where
        id = new.university;
end if;
```