NAMA : FARHAN ZULFAHRIANSYAH

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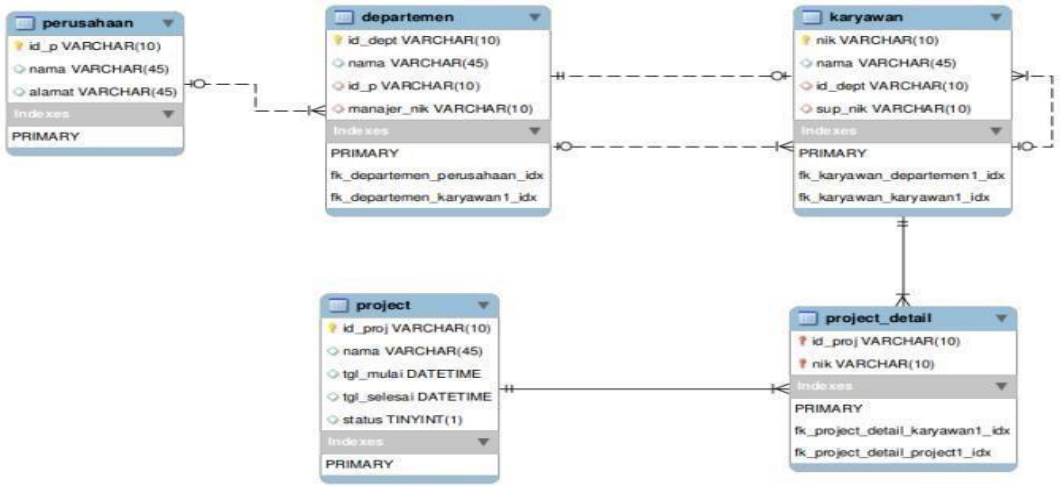
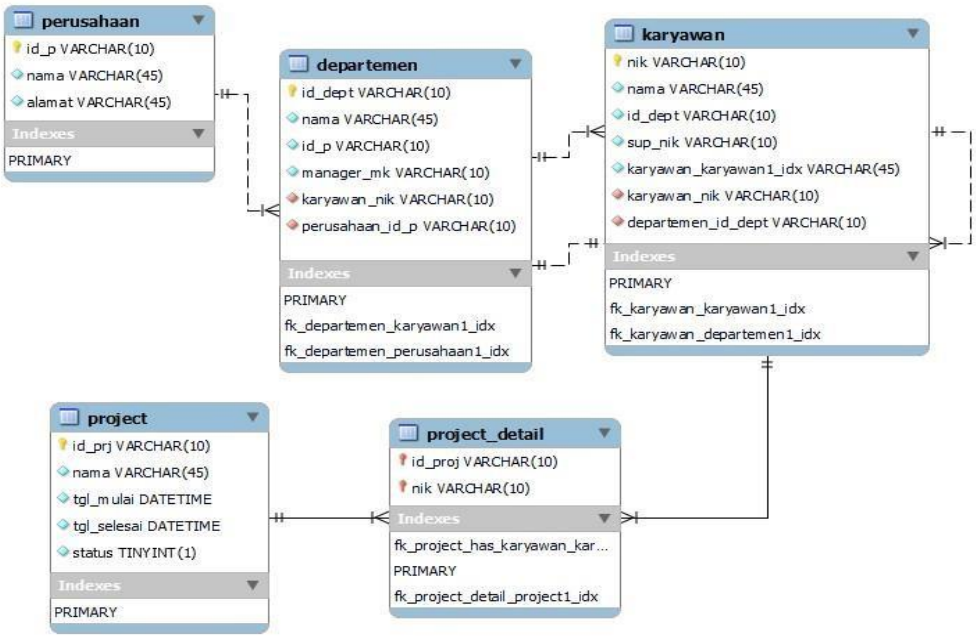
TUGAS STUDI KASUS : ERD KARYAWAN

Latihan :

1. ERD Karyawan (SQL)



Output :



2. Input Data

id_p	nama	alamat
P01	Kantor Pusat	
P02	Cabang Bekasi	

id_dept	nama	id_p	manajer_nik
D01	Produksi	P02	N01
D02	Marketing	P01	N03
D03	RnD	P02	
D04	Logistik	P02	

id_proj	nama	tgl_mulai	tgl_selesai	status
PJ01	A	2019-01-10	2019-03-10	1
PJ02	B	2019-02-15	2019-04-10	1
PJ03	C	2019-03-21	2019-05-10	1

nik	nama	id_dept	sup_nik
N01	Ari	D01	
N02	Dina	D01	
N03	Rika	D03	
N04	Ratih	D01	N01
N05	Riko	D01	N01
N06	Dani	D02	
N07	Anis	D02	N06
N08	Dika	D02	N06

id_proj	nik
PJ01	N01
PJ01	N02
PJ01	N03
PJ01	N04
PJ01	N05
PJ01	N07
PJ01	N08
PJ02	N01
PJ02	N03
PJ02	N05
PJ03	N03
PJ03	N07
PJ03	N08

A. Input p

id_p	nama	alamat
P01	Kantor Pusat	
P02	Cabang Bekasi	

CREATE DATABASE perusahaan;

USE perusahaan;

CREATE TABLE p(id_p VARCHAR(50) NOT NULL PRIMARY KEY,

nama VARCHAR(50)

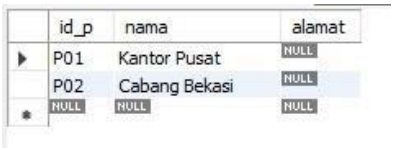
NOT NULL, alamat VARCHAR(50)

```
);

INSERT INTO `perusahaan`.`p` (`id_p`, `nama`) VALUES ('P01', 'Kantor Pusat');
INSERT INTO `perusahaan`.`p` (`id_p`, `nama`) VALUES ('P02', 'Cabang Bekasi');

SELECT * FROM p;
```

Output :



id_p	nama	alamat
P01	Kantor Pusat	NULL
P02	Cabang Bekasi	NULL
NULL	NULL	NULL

B. Input Dept

id_dept	nama	id_p	manajer_nik
D01	Produksi	P02	N01
D02	Marketing	P01	N03
D03	RnD	P02	
D04	Logistik	P02	

```
CREATE TABLE dept( id_dept VARCHAR(50) NOT
NULL PRIMARY KEY, nama VARCHAR(50) NOT NULL, id_p
VARCHAR(50)NOT NULL, manajer_nik
VARCHAR(50)
);

INSERT INTO `perusahaan`.`dept` (`id_dept`, `nama`, `id_p`, `manajer_nik`)
VALUES ('D01', 'Produksi', 'P02', 'N01');
INSERT INTO `perusahaan`.`dept` (`id_dept`, `nama`, `id_p`, `manajer_nik`)
VALUES ('D02', 'Marketing', 'P01', 'N03');
INSERT INTO `perusahaan`.`dept` (`id_dept`, `nama`, `id_p`) VALUES ('D03',
'RnD', 'P02');
INSERT INTO `perusahaan`.`dept` (`id_dept`, `nama`, `id_p`) VALUES ('D04',
'Logistik', 'P02');
```

SELECT * FROM dept; **Output :**

id_dept	nama	id_p	manajer_nik
D01	Produksi	P02	N01
D02	Marketing	P01	N03
D03	RnD	P02	NULL
D04	Logistik	P02	NULL
NULL	NULL	NULL	NULL

C. Input Projectdetail

id_proj	nama	tgl_mulai	tgl_selesai	status
PJ01	A	2019-01-10	2019-03-10	1
PJ02	B	2019-02-15	2019-04-10	1
PJ03	C	2019-03-21	2019-05-10	1

```
CREATE TABLE proj( id_proj VARCHAR(50) NOT
NULL PRIMARY KEY, nama VARCHAR(50) NOT
NULL, tgl_mulai DATE NOT NULL, tgl_selesai
DATE NOT NULL, status VARCHAR(50)
);

INSERT INTO `perusahaan`.`proj` (`id_proj`, `nama`, `tgl_mulai`, `tgl_selesai`,
`status`) VALUES ('PJ01', 'A', '2019-01-10', '2019-03-10', '1');
INSERT INTO `perusahaan`.`proj` (`id_proj`, `nama`, `tgl_mulai`, `tgl_selesai`,
`status`) VALUES ('PJ02', 'B', '2019-02-15', '2019-04-10', '1');
INSERT INTO `perusahaan`.`proj` (`id_proj`, `nama`, `tgl_mulai`, `tgl_selesai`,
`status`) VALUES ('PJ03', 'C', '2019-03-21', '2019-05-10', '1');

SELECT * FROM proj;
```

Output :

id_proj	nama	tgl_mulai	tgl_selesai	status
PJ01	A	2019-01-10	2019-03-10	1
PJ02	B	2019-02-15	2019-04-10	1
PJ03	C	2019-03-21	2019-05-10	1
NULL	NULL	NULL	NULL	NULL

D. Input Karyawan

nik	nama	id_dept	sup_nik
N01	Ari	D01	
N02	Dina	D01	
N03	Rika	D03	
N04	Ratih	D01	N01
N05	Riko	D01	N01
N06	Dani	D02	
N07	Anis	D02	N06
N08	Dika	D02	N06

```
CREATE TABLE k(  nik VARCHAR(50) NOT NULL
PRIMARY KEY, nama VARCHAR(100) NOT NULL,
id_dept VARCHAR(50) NOT NULL, sup_nik
VARCHAR(50)
);
ALTER TABLE `perusahaan`.`k`
DROP PRIMARY KEY,
ADD PRIMARY KEY (`nik`, `id_dept`);
;

INSERT INTO `perusahaan`.`k` (`nik`, `nama`, `id_dept`) VALUES ('N01', 'Ari', 'D01');
INSERT INTO `perusahaan`.`k` (`nik`, `nama`, `id_dept`) VALUES ('N02', 'Dina',
'D01');
INSERT INTO `perusahaan`.`k` (`nik`, `nama`, `id_dept`) VALUES ('N03', 'Rika', 'D03');
INSERT INTO `perusahaan`.`k` (`nik`, `nama`, `id_dept`, `sup_nik`) VALUES ('N04',
'Ratih', 'D01', 'N01');
INSERT INTO `perusahaan`.`k` (`nik`, `nama`, `id_dept`, `sup_nik`) VALUES
('N05', 'Riko', 'D01', 'N01');
INSERT INTO `perusahaan`.`k` (`nik`, `nama`, `id_dept`) VALUES ('N06', 'Dani', 'D02');
INSERT INTO `perusahaan`.`k` (`nik`, `nama`, `id_dept`, `sup_nik`) VALUES ('N07',
'Anis', 'D02', 'N06');
INSERT INTO `perusahaan`.`k` (`nik`, `nama`, `id_dept`, `sup_nik`) VALUES ('N08',
'Dika', 'D02', 'N06');

SELECT * FROM k;
```

Output :

nik	nama	id_dept	sup_nik
N01	Ari	D01	NULL
N02	Dina	D01	NULL
N03	Rika	D03	NULL
N04	Ratih	D01	N01
N05	Riko	D01	N01
N06	Dani	D02	NULL
N07	Anis	D02	N06
N08	Dika	D02	N06
NULL	NULL	NULL	NULL

E. Input Proj

id_proj	nik
PJ01	N01
PJ01	N02
PJ01	N03
PJ01	N04
PJ01	N05
PJ01	N07
PJ01	N08
PJ02	N01
PJ02	N03
PJ02	N05
PJ03	N03
PJ03	N07
PJ03	N08

```
CREATE TABLE projectdetail(  id_proj VARCHAR(50) NOT NULL

PRIMARY KEY, nik

VARCHAR(50) NOT NULL

);

ALTER TABLE `perusahaan`.`projectdetail`

DROP PRIMARY KEY,

ADD PRIMARY KEY (`id_proj`, `nik`);

;


INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ01', 'N01');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ01', 'N02');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ01', 'N03');
```

```
INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ01', 'N04');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ01', 'N05');  INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ01', 'N07');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ01', 'N08');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ02', 'N01');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ02', 'N03');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ02', 'N05');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ03', 'N03');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ03', 'N07');

INSERT INTO `perusahaan`.`projectdetail` (`id_proj`, `nik`) VALUES ('PJ03', 'N08');
```

```
SELECT * FROM projectdetail;
```

Output :

	id_proj	nik
▶	PJ01	N01
	PJ01	N02
	PJ01	N03
	PJ01	N04
	PJ01	N05
	PJ01	N07
	PJ01	N08
	PJ02	N01
	PJ02	N03
	PJ02	N05
	PJ03	N03
	PJ03	N07
	PJ03	N08
*	NULL	NULL

3. Menampilkan nama manajer tiap departemen

departemen	manajer
Produksi	Ari
Marketing	Rika
RnD	
Logistik	

```
SELECT dept.nama, k.nama
FROM dept
LEFT JOIN k ON k.nik = dept.manajer_nik;
```

Output :

	nama	nama
▶	Produksi	Ari
	Marketing	Rika
	RnD	NULL
	Logistik	NULL

4. Menampilkan nama supervisor tiap karyawan

nik	nama	departemen	supervisor
N01	Ari	Produksi	
N02	Dina	Produksi	
N03	Rika	RnD	
N04	Ratih	Produksi	Ari
N05	Riko	Produksi	Ari
N06	Dani	Marketing	
N07	Anis	Marketing	Dani
N08	Dika	Marketing	Dani

```
SELECT  k.nik, k.nama, dept.id_dept AS "departemen", k.sup_nik AS "supervisor"
FROM k
LEFT JOIN projectdetail ON k.nik = k.sup_nik
LEFT JOIN dept ON dept.id_dept = k.id_dept;
```

Output :

	nik	nama	departemen	supervisor
▶	N01	Ari	D01	NULL
	N02	Dina	D01	NULL
	N03	Rika	D03	NULL
	N04	Ratih	D01	N01
	N05	Riko	D01	N01
	N06	Dani	D02	NULL
	N07	Anis	D02	N06
	N08	Dika	D02	N06

5. Menampilkan daftar karyawan yang bekerja pada project A

```
SELECT proj.nama AS "Nama Project", k.nama
FROM k
JOIN projectdetail ON k.nik = projectdetail.nik
JOIN Proj ON Projectdetail.id_proj = Proj.id_proj
WHERE proj.nama = 'A';
```

Output :

	Nama Project	nama
▶	A	Ari
	A	Dina
	A	Rika
	A	Ratih
	A	Riko
	A	Anis
	A	Dika

LATIHAN PRAKTIKUM

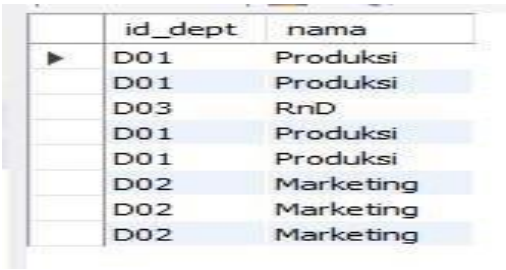
Buat query untuk menampilkan :

1. Departemen apa saja yang terlibat dalam tiap-tiap project

```
SELECT dept.id_dept, dept.nama
FROM k
```

JOIN dept ON k.id_dept = dept.id_dept;

Output :



	id_dept	nama
▶	D01	Produksi
	D01	Produksi
	D03	RnD
	D01	Produksi
	D01	Produksi
	D02	Marketing
	D02	Marketing
	D02	Marketing

2. Jumlah karyawan tiap departemen yang bekerja pada tiap-tiap project

SELECT dept.nama AS "Departemen", proj.nama AS "Nama Project", COUNT(k.nik) AS "jumlah karyawan"

FROM dept

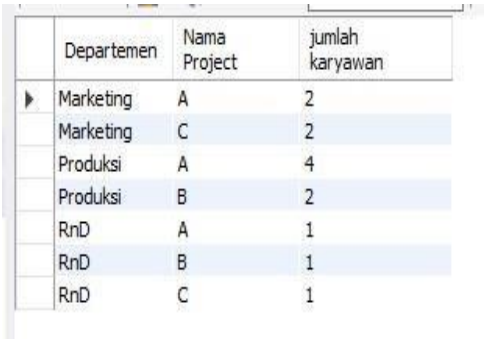
JOIN k ON dept.id_dept = k.id_dept

JOIN projectdetail ON k.nik = projectdetail.nik

JOIN proj ON projectdetail.id_proj = proj.id_proj

GROUP BY dept.nama, proj.nama;

Output :



	Departemen	Nama Project	jumlah karyawan
▶	Marketing	A	2
	Marketing	C	2
	Produksi	A	4
	Produksi	B	2
	RnD	A	1
	RnD	B	1
	RnD	C	1

3. Ada berapa project yang sedang dikerjakan oleh departemen RnD? (ket: project berjalan adalah yang statusnya 1)

SELECT dept.nama AS "Departemen", COUNT(*) AS "Jumlah Project" FROM k

right JOIN dept ON dept.id_dept = k.id_dept

```
WHERE dept.nama = 'RnD';
```

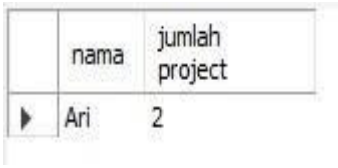
Output :

	Departemen	Jumlah Project
▶	RnD	1

4. Berapa banyak project yang sedang dikerjakan oleh Ari?

```
SELECT k.nama, count(*) AS "jumlah project"
FROM k
JOIN projectdetail ON k.nik = projectdetail.nik
WHERE k.nama = 'Ari';
```

Output :

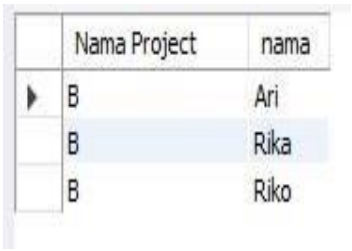


	nama	jumlah project
▶	Ari	2

5. Siapa saja yang mengerjakan projcet B?

```
SELECT proj.nama AS "Nama Project", k.nama
FROM k
JOIN projectdetail ON k.nik = projectdetail.nik
JOIN Proj ON Projectdetail.id_proj = Proj.id_proj
WHERE proj.nama = 'B';
```

Output :



	Nama Project	nama
▶	B	Ari
	B	Rika
	B	Riko