

```
CREATE TABLE Perusahaan (  
    id_p VARCHAR(255) PRIMARY KEY,  
    nama VARCHAR(255),  
    alamat VARCHAR(255)  
);
```

```
CREATE TABLE Proyek (  
    id_proj VARCHAR(255) PRIMARY KEY,  
    nama VARCHAR(255),  
    tgl_mulai DATE,  
    tgl_selesai DATE,  
    status VARCHAR(255)  
);
```

```
CREATE TABLE Manajer (  
    manajer_nik VARCHAR(255) PRIMARY KEY,  
    nama VARCHAR(255),  
    id_dept VARCHAR(255),  
    sup_nik VARCHAR(255)  
);
```

```
CREATE TABLE Departemen (  
    id_dept VARCHAR(255) PRIMARY KEY,  
    nama VARCHAR(255),  
    id_p VARCHAR(255),  
    manajer_nik VARCHAR(255),  
    FOREIGN KEY (id_p) REFERENCES Perusahaan(id_p),  
    FOREIGN KEY (manajer_nik) REFERENCES Manajer(manajer_nik)  
);
```

```
ALTER TABLE Manajer  
ADD FOREIGN KEY (id_dept) REFERENCES Departemen(id_dept);
```

```
CREATE TABLE Penugasan (  
    id_proj VARCHAR(255),  
    manajer_nik VARCHAR(255),  
    FOREIGN KEY (id_proj) REFERENCES Projek(id_proj),  
    FOREIGN KEY (manajer_nik) REFERENCES Manajer(manajer_nik)  
);
```

```
INSERT INTO Penugasan (id_proj, manajer_nik)
```

```
VALUES
```

```
('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');
```

```
SELECT DISTINCT d.nama AS nama_departemen
```

```
FROM Departemen d
```

```
LEFT JOIN Manajer m ON d.id_dept = m.id_dept
LEFT JOIN Penugasan pn ON m.manajer_nik = pn.manajer_nik
LEFT JOIN Proyek p ON pn.id_proj = p.id_proj;
```

```
SELECT p.id_proj, p.nama AS nama_projek, COUNT(DISTINCT m.manajer_nik) AS jumlah_karyawan
FROM Proyek p
JOIN Penugasan pn ON p.id_proj = pn.id_proj
JOIN Manajer m ON pn.manajer_nik = m.manajer_nik
GROUP BY p.id_proj, p.nama;
```

```
SELECT COUNT(*) AS jumlah_projek
FROM Proyek p
JOIN Penugasan pn ON p.id_proj = pn.id_proj
JOIN manajer k ON pn.manajer_nik = k.manajer_nik
JOIN Departemen d ON k.id_dept = d.id_dept
WHERE d.nama = 'RnD' AND p.status = 1;
```

```
SELECT COUNT(*) AS jumlah_projek
FROM Proyek p
JOIN Penugasan pn ON p.id_proj = pn.id_proj
JOIN Manajer m ON pn.manajer_nik = m.manajer_nik
WHERE m.nama = 'Ari';
```

```
SELECT m.nama AS nama_karyawan
FROM manajer m
JOIN Penugasan pn ON m.manajer_nik = pn.manajer_nik
JOIN Proyek p ON pn.id_proj = p.id_proj
```

WHERE p.nama = 'B';

```
SELECT DISTINCT d.nama AS nama_departemen
FROM Departemen d
LEFT JOIN Manajer m ON d.id_dept = m.id_dept
LEFT JOIN Penugasan pn ON m.manajer_nik = pn.manajer_nik
LEFT JOIN Projek p ON pn.id_proj = p.id_proj;
```

	nama_departemen
▶	Produksi
	Marketing
	RnD
	Logistik

```
SELECT p.id_proj, p.nama AS nama_projek, COUNT(DISTINCT m.manajer_nik) AS jumlah_karyawan
FROM Projek p
JOIN Penugasan pn ON p.id_proj = pn.id_proj
JOIN Manajer m ON pn.manajer_nik = m.manajer_nik
GROUP BY p.id_proj, p.nama;
```

	id_proj	nama_projek	jumlah_karyawan
▶	PJ01	A	7
	PJ02	B	3
	PJ03	C	3

```
SELECT COUNT(*) AS jumlah_projek
FROM Projek p
JOIN Penugasan pn ON p.id_proj = pn.id_proj
JOIN manajer k ON pn.manajer_nik = k.manajer_nik
JOIN Departemen d ON k.id_dept = d.id_dept
WHERE d.nama = 'RnD' AND p.status = 1;
```

	jumlah_projek
▶	3

```
SELECT COUNT(*) AS jumlah_projek
FROM Projek p
JOIN Penugasan pn ON p.id_proj = pn.id_proj
JOIN Manajer m ON pn.manajer_nik = m.manajer_nik
WHERE m.nama = 'Ari';
```

	jumlah_projek
▶	2

```
SELECT m.nama AS nama_karyawan  
FROM manajer m  
JOIN Penugasan pn ON m.manajer_nik = pn.manajer_nik  
JOIN Proyek p ON pn.id_proj = p.id_proj  
WHERE p.nama = 'B';
```

	nama_karyawan
▶	Ari
	Rika
	Riko