

**IF2240 - Basis Data**

# **Praktikum 0**

**Eksplorasi SQL**

12 Maret 2025 - 17 Maret 2025

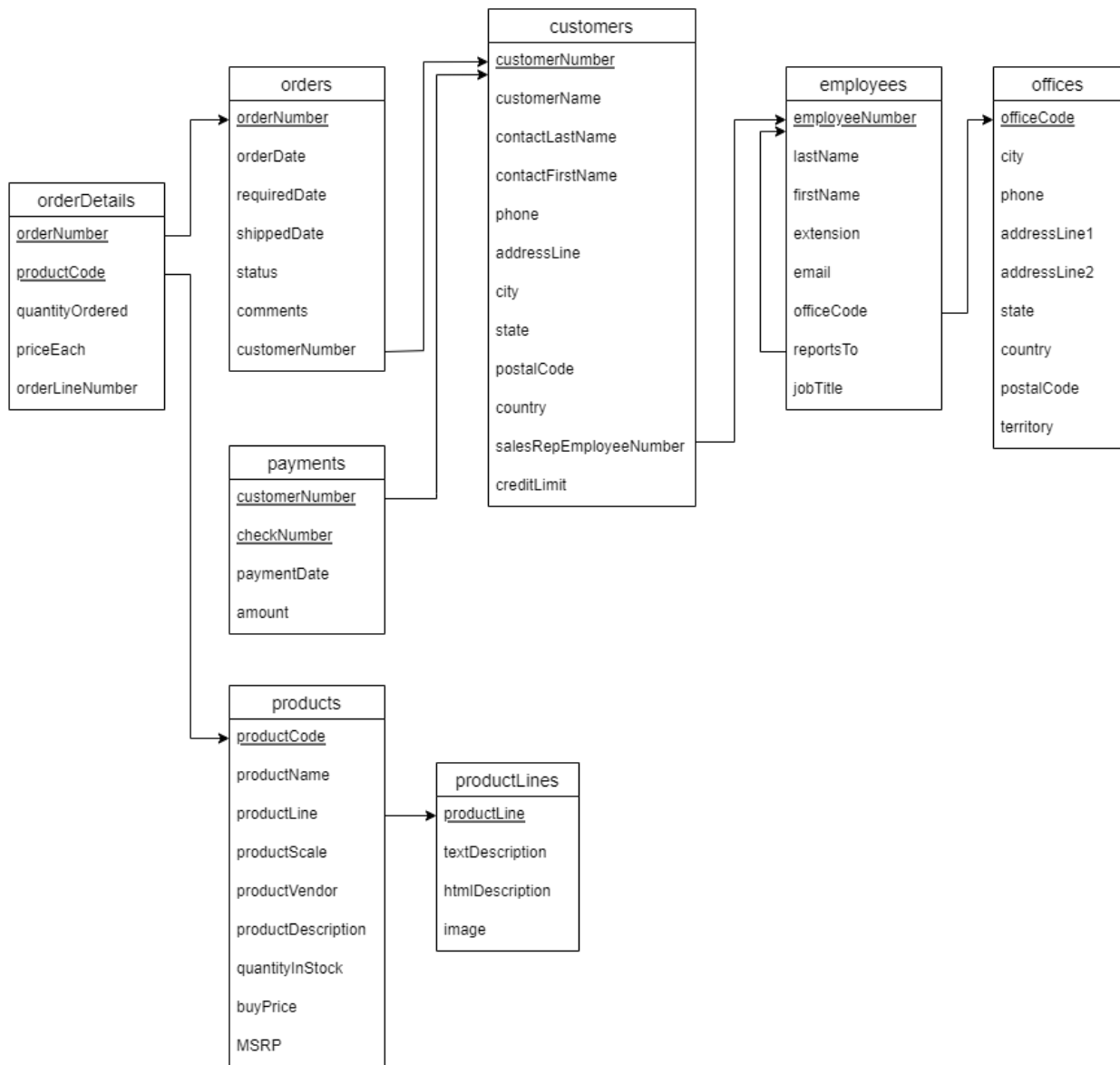


Muhammad Iqbal Haidar

13523111

**Program Studi Teknik Informatika  
Sekolah Teknik Elektro dan Informatika  
Institut Teknologi Bandung  
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# Multinational Company



## Legenda

No	Nama Tabel	Keterangan
1	customers	Pelanggan dari perusahaan
2	employees	Pegawai dari perusahaan
3	offices	Kantor cabang perusahaan
4	orders	Pemesanan
5	orderDetails	Detail barang yang dipesan untuk pemesanan tertentu
6	payments	Pembayaran yang dilakukan pelanggan
7	products	Produk yang dijual perusahaan
8	productLines	Lini produk

## Petunjuk

1. Praktikum 0 bersifat *take home*.
2. Praktikum ini bersifat individual. Segala plagiarisme akan mengakibatkan nilai 0 pada praktikum ini.

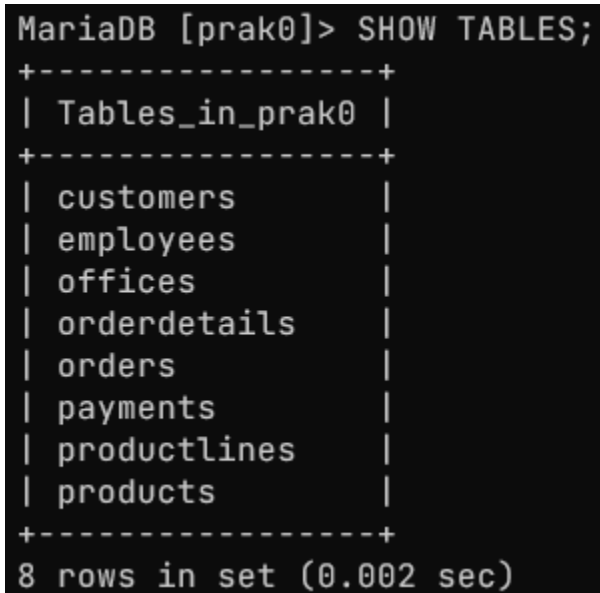
## I. Soal

1. Buatlah *query* untuk menampilkan seluruh tabel yang terdapat dalam database prak1!

**QUERY:**

SHOW TABLES;

**SCREENSHOT:**



```
MariaDB [prak0]> SHOW TABLES;
+-----+
| Tables_in_prak0 |
+-----+
| customers        |
| employees        |
| offices          |
| orderdetails     |
| orders           |
| payments         |
| productlines     |
| products         |
+-----+
8 rows in set (0.002 sec)
```

2. Buatlah *query* untuk menampilkan detail informasi atribut dari entitas customers yang terdapat dalam database prak0!

**QUERY:**

SHOW COLUMNS FROM customers;

**SCREENSHOT:**

```
MariaDB [prak0]> SHOW COLUMNS FROM customers;
```

Field	Type	Null	Key	Default	Extra
customerNumber	int(11)	NO	PRI	NULL	
customerName	varchar(50)	NO		NULL	
contactLastName	varchar(50)	NO		NULL	
contactFirstName	varchar(50)	NO		NULL	
phone	varchar(50)	NO		NULL	
addressLine1	varchar(50)	NO		NULL	
addressLine2	varchar(50)	YES		NULL	
city	varchar(50)	NO		NULL	
state	varchar(50)	YES		NULL	
postalCode	varchar(15)	YES		NULL	
country	varchar(50)	NO		NULL	
salesRepEmployeeNumber	int(11)	YES	MUL	NULL	
creditLimit	decimal(10,2)	YES		NULL	

13 rows in set (0.021 sec)

3. Buatlah *query* untuk menampilkan seluruh nama pengunjung dalam huruf kecil!

*HINT: gunakan LOWER( )*

**QUERY:**

```
SELECT LOWER(customerName) AS customerName  
FROM customers;
```

**SCREENSHOT:**

```
MariaDB [prak0]> SELECT LOWER(customerName) AS customerName  
→ FROM customers;
```

customerName
atelier graphique
signal gift stores
australian collectors, co.
la rochelle gifts
baane mini imports
mini gifts distributors ltd.
havel & zbyszek co
blauer see auto, co.
mini wheels co.
land of toys inc.

```
| west coast collectables co. |
| mit vergn??gen & co.      |
| kremlin collectables, co. |
| raanan stores, inc        |
| iberia gift imports, corp. |
| motor mint distributors inc. |
| signal collectibles ltd.   |
| double decker gift stores, ltd |
| diecast collectables      |
| kelly's gift shop         |
+-----+
122 rows in set (0.001 sec)
```

4. Buatlah *query* untuk menampilkan 5 nama pengunjung yang berasal dari kota Bern!

*HINT: gunakan LIMIT untuk membatasi jumlah data yang ditampilkan*

**QUERY:**  
SELECT customerName  
FROM customers  
WHERE city = 'Bern'  
LIMIT 5;

**SCREENSHOT:**

```
MariaDB [prak0]> SELECT customerName
→ FROM customers
→ WHERE city = 'Bern'
→ LIMIT 5;

+-----+
| customerName |
+-----+
| Precious Collectables |
+-----+
1 row in set (0.001 sec)
```

5. Buatlah *query* untuk menampilkan nama pegawai yang bekerja di kantor yang berada di negara Australia!

*HINT: gunakan CONCAT() untuk menggabungkan lebih dari 1 string*

**QUERY:**

```
SELECT CONCAT(firstName, " ", lastName) AS "Nama Pegawai"
FROM employees
WHERE officeCode = (
    SELECT officeCode
    FROM offices
    WHERE country = "Australia");
```

**SCREENSHOT:**

```
MariaDB [prak0]> SELECT CONCAT(firstName, " ", lastName) AS "Nama Pegawai"
→ FROM employees
→ WHERE officeCode = (
→   SELECT officeCode
→   FROM offices
→   WHERE country = "Australia");
+-----+
| Nama Pegawai |
+-----+
| William Patterson |
| Andy Fixter      |
| Peter Marsh      |
| Tom King         |
+-----+
4 rows in set (0.001 sec)
```

6. Buatlah *query* yang menampilkan nama pengunjung yang pernah membuat pembayaran dengan jumlah diatas 50000!

**QUERY:**

```
SELECT customerName
FROM customers
WHERE customerNumber IN (
    SELECT customerNumber
    FROM (
        SELECT customerNumber, SUM(amount) as amountSum
        FROM payments
        GROUP BY customerNumber) AS paymentSum
    WHERE amountSum > 50000);
```

**SCREENSHOT:**

```

MariaDB [prak0]> SELECT customerName
→ FROM customers
→ WHERE customerNumber IN (
→     SELECT customerNumber
→     FROM (
→         SELECT customerNumber, SUM(amount) as amountSum
→         FROM payments
→         GROUP BY customerNumber) AS paymentSum
→     WHERE amountSum > 50000);

```

```

+-----+
| customerName |
+-----+
| Signal Gift Stores |
| Australian Collectors, Co. |
| La Rochelle Gifts |
| Baane Mini Imports |
| Mini Gifts Distributors Ltd. |
| Blauer See Auto, Co. |
| Mini Wheels Co. |
| Land of Toys Inc. |
| Euro+ Shopping Channel |
| Danish Wholesale Imports |

```

```

| Scandinavian Gift Ideas |
| The Sharp Gifts Warehouse |
| Mini Auto Werke |
| Super Scale Inc. |
| Corrida Auto Replicas, Ltd |
| FunGiftIdeas.com |
| Iberia Gift Imports, Corp. |
| Motor Mint Distributors Inc. |
| Diecast Collectables |
| Kelly's Gift Shop |
+-----+
78 rows in set (0.001 sec)

```

7. Buatlah *query* untuk menampilkan nama pengunjung yang dilayani oleh pegawai yang bekerja di kantor yang berada di negara Japan!

**QUERY:**

```

SELECT customers.customerName
FROM customers, employees, offices
WHERE offices.country = 'Japan' AND employees.officeCode = offices.officeCode
AND customers.salesRepEmployeeNumber = employees.employeeNumber

```



**SCREENSHOT:**

```
MariaDB [prak0]> SELECT customers.customerName
→ FROM customers, employees, offices
→ WHERE offices.country = 'Japan' AND employees.officeCode = offices.officeCode
→ AND customers.salesRepEmployeeNumber = employees.employeeNumber;

+-----+
| customerName |
+-----+
| Dragon Souvenirs, Ltd. |
| Osaka Souvenirs Co. |
| King Kong Collectables, Co. |
| Cruz & Sons Co. |
| Tokyo Collectables, Ltd |
+-----+
5 rows in set (0.001 sec)
```

8. Buatlah *query* untuk menampilkan nama produk yang memiliki harga beli di atas 50 dan pernah dipesan di antara bulan April sampai September (inklusif)!

**QUERY:**

```
SELECT DISTINCT p.productName
FROM products AS p
    INNER JOIN orderDetails AS od
        ON p.productCode = od.productCode
    INNER JOIN orders AS o
        ON o.orderNumber = od.orderNumber
WHERE p.buyPrice > 50 AND MONTH(o.orderDate) >= 4 AND MONTH(o.orderDate)
<= 9;
```

**SCREENSHOT:**

```
MariaDB [prak0]> SELECT DISTINCT p.productName
→ FROM products AS p
→     INNER JOIN orderDetails AS od
→     ON p.productCode = od.productCode
→     INNER JOIN orders AS o
→     ON o.orderNumber = od.orderNumber
→ WHERE p.buyPrice > 50 AND MONTH(o.orderDate) ≥ 4 AND MONTH(o.orderDate) ≤ 9;

+-----+
| productName |
+-----+
| 1952 Alpine Renault 1300 |
| 1996 Moto Guzzi 1100i |
| 2003 Harley-Davidson Eagle Drag Bike |
| 1972 Alfa Romeo GTA |
| 1962 LanciaA Delta 16V |
| 1968 Ford Mustang |
| 2001 Ferrari Enzo |
| 1958 Setra Bus |
| 2002 Suzuki XRE0 |
| 1969 Corvair Monza |
+-----+
```

```
| 1980?ÇÖs GM Manhattan Express |
| 1997 BMW F650 ST                |
| 1974 Ducati 350 Mk3 Desmo       |
| Diamond T620 Semi-Skirted Tanker|
| American Airlines: B767-300     |
| America West Airlines B757-200  |
| ATA: B757-300                   |
| F/A 18 Hornet 1/72              |
| The Titanic                      |
| The Queen Mary                  |
+-----+
61 rows in set (0.002 sec)
```

9. Buatlah query untuk menampilkan nama lengkap karyawan yang melapor kepada Anthony Bow dan pernah melayani pengunjung yang berasal dari Brickhaven atau Las Vegas!

#### QUERY:

```
SELECT DISTINCT CONCAT(e1.firstName, ' ', e1.lastName) AS "Nama Pegawai"
FROM (employees AS e1
      INNER JOIN customers AS c
            ON e1.employeeNumber = c.salesRepEmployeeNumber
      INNER JOIN employees AS e2
            ON e1.reportsTo = e2.employeeNumber)
WHERE e2.firstName = 'Anthony' AND e2.lastName = 'Bow' AND (c.city =
'Brickhaven' OR c.city = 'Las Vegas');
```

#### SCREENSHOT:

```
MariaDB [prak0]> SELECT DISTINCT CONCAT(e1.firstName, ' ', e1.lastName) AS "Nama Pegawai"
→ FROM (employees AS e1
→       INNER JOIN customers AS c
→             ON e1.employeeNumber = c.salesRepEmployeeNumber
→       INNER JOIN employees AS e2
→             ON e1.reportsTo = e2.employeeNumber)
→ WHERE e2.firstName = 'Anthony' AND e2.lastName = 'Bow' AND (c.city = 'Brickhaven' OR c.city = 'Las Vegas');
+-----+
| Nama Pegawai |
+-----+
| Leslie Thompson |
| Julie Firrelli |
| Steve Patterson |
+-----+
3 rows in set (0.010 sec)
```