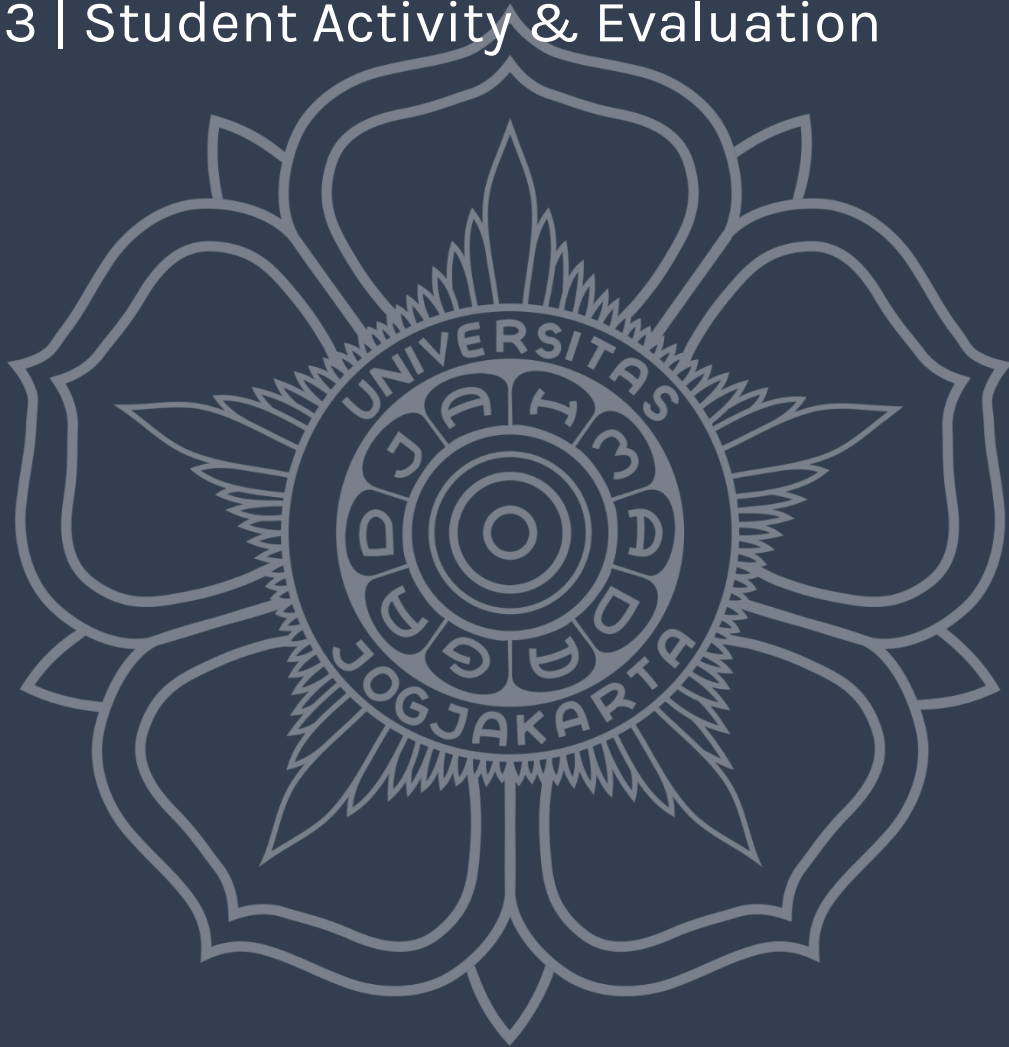


Praktikum Basis Data (MII2502)

Bab 3 | Student Activity & Evaluation



Chrystian

18/430257/PA/18770

2.7 Query Source Code

```
CREATE DATABASE furniture_company;
USE furniture_company;

CREATE TABLE `customers` (
  `customerNumber` int(11) NOT NULL AUTO_INCREMENT,
  `customerName` varchar(50) NOT NULL,
  `addressLine1` varchar(50) NOT NULL,
  `addressLine2` varchar(50) DEFAULT NULL,
  `city` varchar(50) NOT NULL,
  `state` varchar(50) DEFAULT NULL,
  `postalCode` varchar(15) DEFAULT NULL,
  PRIMARY KEY (`customerNumber`)
);

CREATE TABLE `products` (
  `productCode` varchar(15) NOT NULL,
  `productName` varchar(70) NOT NULL,
  `productFinish` varchar(50) NOT NULL,
  `productPrice` float(10, 2) NOT NULL,
  PRIMARY KEY (`productCode`)
);

CREATE TABLE `orders` (
  `orderNumber` int(11) NOT NULL AUTO_INCREMENT,
  `orderDate` date NOT NULL,
  `requiredDate` date NOT NULL,
  `shippedDate` date DEFAULT NULL,
  `status` varchar(15) NOT NULL,
  `customerNumber` int(11) NOT NULL,
  `extendedPrice` float(12, 2) NOT NULL,
  PRIMARY KEY (orderNumber),
  FOREIGN KEY (customerNumber) REFERENCES customers(customerNumber)
);

CREATE TABLE `orderdetails` (
  `orderNumber` int(11) NOT NULL,
  `productCode` varchar(15) NOT NULL,
  `quantityOrdered` int(11) NOT NULL,
  `totalPrice` float(12, 2) NOT NULL,
  FOREIGN KEY (orderNumber) REFERENCES orders(orderNumber),
  FOREIGN KEY (productCode) REFERENCES products(productCode)
);

--insert data--

INSERT INTO `customers` VALUES
( NULL, 'Chrystian', '54, rue Royale', NULL, 'Las Vegas', 'Nevada', '44000'),
( NULL, 'Ferguson', '636 St Kilda Road', NULL, 'Melbourne', 'Victoria', '3004'),
( NULL, 'Jonas', 'Erling Skakkes gate 78', NULL, 'Stavern', NULL, '4110'),
( NULL, 'Murphy', '5557 North Pendale Street', NULL, 'San Francisco', 'California', '94217'),
( NULL, 'Berglund', 'Berguvsvägen 8', NULL, 'Luleå', NULL, 'S-958 22');

INSERT INTO `products` VALUES
( '0000A01', 'Dining Table', 'Natural Ash', '800.00'),
( '0000A02', 'Dining Table', 'Cherry', '850.00'),
( '0000B01', 'Writers Desk', 'Natural Ash', '300.00'),
( '0000B02', 'Writers Desk', 'Cherry', '325.00'),
( '0000C01', 'Entertainment Center', 'Natural Maple', '650.00'),
( '0000C02', 'Entertainment Center', 'Cherry', '605.00');
```

```

INSERT INTO `orders` VALUES
(NULL, '2006-10-24', '2006-10-31', '2006-10-
28', 'DELIVERED', (SELECT customerNumber from customers where customerName='Murphy'), '2900.00'),
(NULL, '2006-11-1', '2006-11-21', '2006-11-
15', 'ON TRANSIT', (SELECT customerNumber from customers where customerName='Jonas'), '2200.00'),
(NULL, '2007-01-9', '2007-01-16', '2007-01-
15', 'ON TRANSIT', (SELECT customerNumber from customers where customerName='Chrystian'), '2510.00')
,
(NULL, '2007-01-11', '2007-01-
21', NULL, 'ON PACKAGING', (SELECT customerNumber from customers where customerName='Berglund'), '17
75.00'),
(NULL, '2007-01-12', '2007-01-
31', NULL, 'NOT SHIPPED', (SELECT customerNumber from customers where customerName='Ferguson'), '187
5.00');

--Murphy order--
INSERT INTO `orderdetails` VALUES
((SELECT orderNumber FROM orders WHERE orderNumber='1'), (SELECT productCode from products WHERE pro
ductCode = '0000A01'), '2', '1600.00'),
((SELECT orderNumber FROM orders WHERE orderNumber='1'), (SELECT productCode from products WHERE pro
ductCode = '0000B02'), '2', '650.00'),
((SELECT orderNumber FROM orders WHERE orderNumber='1'), (SELECT productCode from products WHERE pro
ductCode = '0000C01'), '1', '650.00');

--Jonas order--
INSERT INTO `orderdetails` VALUES
((SELECT orderNumber FROM orders WHERE orderNumber='2'), (SELECT productCode from products WHERE pro
ductCode = '0000A01'), '2', '1600.00'),
((SELECT orderNumber FROM orders WHERE orderNumber='2'), (SELECT productCode from products WHERE pro
ductCode = '0000B01'), '2', '600.00');

--Chrystian order--
INSERT INTO `orderdetails` VALUES
((SELECT orderNumber FROM orders WHERE orderNumber='3'), (SELECT productCode from products WHERE pro
ductCode = '0000C01'), '2', '1300.00'),
((SELECT orderNumber FROM orders WHERE orderNumber='3'), (SELECT productCode from products WHERE pro
ductCode = '0000C02'), '2', '1210.00');

--Berglund order--
INSERT INTO `orderdetails` VALUES
((SELECT orderNumber FROM orders WHERE orderNumber='4'), (SELECT productCode from products WHERE pro
ductCode = '0000A01'), '1', '800.00'),
((SELECT orderNumber FROM orders WHERE orderNumber='4'), (SELECT productCode from products WHERE pro
ductCode = '0000B02'), '1', '325.00'),
((SELECT orderNumber FROM orders WHERE orderNumber='4'), (SELECT productCode from products WHERE pro
ductCode = '0000C01'), '1', '650.00');

--Ferguson order--
INSERT INTO `orderdetails` VALUES
((SELECT orderNumber FROM orders WHERE orderNumber='5'), (SELECT productCode from products WHERE pro
ductCode = '0000B01'), '3', '900.00'),
((SELECT orderNumber FROM orders WHERE orderNumber='5'), (SELECT productCode from products WHERE pro
ductCode = '0000B02'), '1', '325.00'),
((SELECT orderNumber FROM orders WHERE orderNumber='5'), (SELECT productCode from products WHERE pro
ductCode = '0000C01'), '1', '650.00');

```

```
--display all order data--

SELECT
    ord.customerNumber, customerName, addressLine1, addressLine2,
    ord.orderNumber, orderDate, ordd.productCode, productName,
    productFinish, quantityOrdered, productPrice, totalPrice, extendedPrice
from
    orders as ord
    inner join customers as cstmr on ord.customerNumber = cstmr.customerNumber
    inner join orderdetails as ordd on ord.orderNumber = ordd.orderNumber
    inner join products as prd on ordd.productCode = prd.productCode
ORDER BY ord.orderNumber;

--display murphy order data--

SELECT
    ord.customerNumber, customerName, addressLine1, addressLine2,
    ord.orderNumber, orderDate, ordd.productCode, productName,
    productFinish, quantityOrdered, productPrice, totalPrice, extendedPrice
from
    orders as ord
    inner join customers as cstmr on ord.customerNumber = cstmr.customerNumber
    inner join orderdetails as ordd on ord.orderNumber = ordd.orderNumber
    inner join products as prd on ordd.productCode = prd.productCode
where cstmr.customerNumber = '4'
```

Tabel customers

```
MariaDB [furniture_company]> select * from customers;
ERROR 2006 (HY000): MySQL server has gone away
No connection. Trying to reconnect...
Connection id: 2
Current database: furniture_company
```

customerNumber	customerName	addressLine1	addressLine2	city	state	postalCode
1	Chrystian	54, rue Royale	NULL	Las Vegas	Nevada	44000
2	Ferguson	636 St Kilda Road	NULL	Melbourne	Victoria	3004
3	Jonas	Erling Skakkes gate 78	NULL	Stavern	NULL	4110
4	Murphy	5557 North Pendale Street	NULL	San Francisco	California	94217
5	Berglund	Berguvsvägen 8	NULL	Luleå	NULL	S-958 22

```
5 rows in set (0.00 sec)

MariaDB [furniture_company]>
```

Tabel products

```
MariaDB [furniture_company]> select * from products;
```

productCode	productName	productFinish	productPrice
0000A01	Dining Table	Natural Ash	800.00
0000A02	Dining Table	Cherry	850.00
0000B01	Writers Desk	Natural Ash	300.00
0000B02	Writers Desk	Cherry	325.00
0000C01	Entertainment Center	Natural Maple	650.00
0000C02	Entertainment Center	Cherry	605.00

```
6 rows in set (0.00 sec)

MariaDB [furniture_company]>
```

Tabel orders

```
MariaDB [furniture_company]> select * from orders;
```

orderNumber	orderDate	requiredDate	shippedDate	status	customerNumber	extendedPrice
1	2006-10-24	2006-10-31	2006-10-28	DELIVERED	4	2900.00
2	2006-11-01	2006-11-21	2006-11-15	ON TRANSIT	3	2200.00
3	2007-01-09	2007-01-16	2007-01-15	ON TRANSIT	1	2510.00
4	2007-01-11	2007-01-21	NULL	ON PACKAGING	5	1775.00
5	2007-01-12	2007-01-31	NULL	NOT SHIPPED	2	1875.00

```
5 rows in set (0.00 sec)

MariaDB [furniture_company]>
```

Tabel orderdetails

```
MariaDB [furniture_company]> select * from orderdetails;
```

orderNumber	productCode	quantityOrdered	totalPrice
1	0000A01	2	1600.00
1	0000B02	2	650.00
1	0000C01	1	650.00
2	0000A01	2	1600.00
2	0000B01	2	600.00
3	0000C01	2	1300.00
3	0000C02	2	1210.00
4	0000A01	1	800.00
4	0000B02	1	325.00
4	0000C01	1	650.00
5	0000B01	3	900.00
5	0000B02	1	325.00
5	0000C01	1	650.00

```
13 rows in set (0.00 sec)

MariaDB [furniture_company]>
```


SELECT ALL QUERY

Run SQL query/queries on database furniture_company: ?

```
1 SELECT
2   ord.customerNumber, customerName, addressLine1, addressLine2,
3   ord.orderNumber, orderDate, ordd.productCode, productName,
4   productFinish, quantityOrdered, productPrice, totalPrice, extendedPrice
5 from
6   orders as ord
7   inner join customers as cstmr on ord.customerNumber = cstmr.customerNumber
8   inner join orderdetails as ordd on ord.orderNumber = ordd.orderNumber
9   inner join products as prd on ordd.productCode = prd.productCode
10 ORDER BY ord.orderNumber;
```

customerNumber	customerName	addressLine1	addressLine2	orderNumber	orderDate	productCode	productName	productFinish	quantityOrdered	productPrice	totalPrice	extendedPrice
4	Murphy	5557 North Pendale Street	NULL	1	2006-10-24	0000A01	Dining Table	Natural Ash	2	800.00	1600.00	2900.00
4	Murphy	5557 North Pendale Street	NULL	1	2006-10-24	0000B02	Writers Desk	Cherry	2	325.00	650.00	2900.00
4	Murphy	5557 North Pendale Street	NULL	1	2006-10-24	0000C01	Entertainment Center	Natural Maple	1	650.00	650.00	2900.00
3	Jonas	Erling Skakkes gate 78	NULL	2	2006-11-01	0000B01	Writers Desk	Natural Ash	2	300.00	600.00	2200.00
3	Jonas	Erling Skakkes gate 78	NULL	2	2006-11-01	0000A01	Dining Table	Natural Ash	2	800.00	1600.00	2200.00
1	Chrystian	54, rue Royale	NULL	3	2007-01-09	0000C01	Entertainment Center	Natural Maple	2	650.00	1300.00	2510.00
1	Chrystian	54, rue Royale	NULL	3	2007-01-09	0000C02	Entertainment Center	Cherry	2	605.00	1210.00	2510.00
5	Berglund	Berguvsvägen 8	NULL	4	2007-01-11	0000A01	Dining Table	Natural Ash	1	800.00	800.00	1775.00
5	Berglund	Berguvsvägen 8	NULL	4	2007-01-11	0000B02	Writers Desk	Cherry	1	325.00	325.00	1775.00
5	Berglund	Berguvsvägen 8	NULL	4	2007-01-11	0000C01	Entertainment Center	Natural Maple	1	650.00	650.00	1775.00
2	Ferguson	636 St Kilda Road	NULL	5	2007-01-12	0000B01	Writers Desk	Natural Ash	3	300.00	900.00	1875.00
2	Ferguson	636 St Kilda Road	NULL	5	2007-01-12	0000B02	Writers Desk	Cherry	1	325.00	325.00	1875.00
2	Ferguson	636 St Kilda Road	NULL	5	2007-01-12	0000C01	Entertainment Center	Natural Maple	1	650.00	650.00	1875.00

SELECT QUERY WHERE customerNumber = '4'

Run SQL query/queries on database furniture_company: 

```

1 SELECT
2   ord.customerNumber, customerName, addressLine1, addressLine2,
3   ord.orderNumber, orderDate, ordd.productCode, productName,
4   productFinish, quantityOrdered, productPrice, totalPrice, extendedPrice
5 from
6   orders as ord
7   inner join customers as cstmr on ord.customerNumber = cstmr.customerNumber
8   inner join orderdetails as ordd on ord.orderNumber = ordd.orderNumber
9   inner join products as prd on ordd.productCode = prd.productCode
10  where cstmr.customerNumber = '4'

```

customerNumber	customerName	addressLine1	addressLine2	orderNumber	orderDate	productCode	productName	productFinish	quantityOrdered	productPrice	totalPrice	extendedPrice
4	Murphy	5557 North Pendale Street	NULL	1	2006-10-24	0000A01	Dining Table	Natural Ash	2	800.00	1600.00	2900.00
4	Murphy	5557 North Pendale Street	NULL	1	2006-10-24	0000B02	Writers Desk	Cherry	2	325.00	650.00	2900.00
4	Murphy	5557 North Pendale Street	NULL	1	2006-10-24	0000C01	Entertainment Center	Natural Maple	1	650.00	650.00	2900.00

2.8 Evaluation Question

1. Explain how to use Insert, Update and Delete command!

INSERT

```
INSERT INTO table_name (column1, column2, column3, ...)
VALUES (value1, value2, value3, ...);
```

Cara untuk memasukan data jika hanya beberapa spesifik column saja yang akan dimasukan dapat menggunakan Syntax diatas.

Jadi kita harus menspesifikasi column apa saja yang akan di masukan setelah itu memberi value sesuai dengan urutan column yang di spesifikasikan.

```
INSERT INTO table_name
VALUES (value1, value2, value3, ...);
```

Tapi jika akan menginsert semua data yang ada maka tidak harus menuliskan column apa, langsung saja memberi value dengan urutan column sesuai dengan description table_name nya.


```
INSERT INTO table_name
VALUES (value1_0, value2_0, value3_0, ...),
       (value1_0, value2_0, value3_0, ...);
```

Untuk memasukkan data jamak dapat tinggal ditambahkan ‘,’ sebelum ‘;’ seperti diatas.

UPDATE

Cara mengupdate suatu row yang sudah ada dapat dilakukan UPDATE dengan SET mengeset column apa yang akan di ubah dan dengan koma jika ingin mengupdate column lebih dari satu, setelah itu menjelaskan WHERE yaitu kondisi row yang ketika benar akan diubah syntax seperti dibawah.

```
UPDATE table_name
SET column1 = value1, column2 = value2, ...
WHERE condition;
```

DELETE

Cara untuk menghapus record dapat dilakukan dengan syntax dibawah di mana harus menjelaskan dari mana table_name yang akan dihapus dan WHERE apa saja kondisi yang akan menghapus records (lebih dari satu) tersebut.

```
DELETE FROM table_name WHERE condition;
```

2. What command to modify values of multiple column from a table?

Untuk mengupdate multiple column dari table dapat dilakukan dengan menambah SET kondisi dengan tanda koma (,) seperti dibawah

```
UPDATE table_name
SET column1 = value1, column2 = value2, ...
WHERE condition;
```

Maka dengan itu semua record(s) yang ada di condition akan diubah setiap column yang telah di spesifikasi dengan SET.