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Tugas : Assignment 2
Github : <https://github.com/clearyn/OCBC-H8/tree/main/SESI6/Assign2>

Screenshoot Soal No.1 :

customerNumber	customerName	contactLastName	contactFirstName	addressLine1	addressLine2	city	state	postalCode	country	salesRepEmployeeNumber	creditLimit
1	Dhanny Rachmat	[NULL]	[NULL]	Jl Meikarta 99	[NULL]	Bandung	Indonesia	40177	Indonesia	1	[NULL]
2	Ferdinand Lanvino	[NULL]	[NULL]	Jl Sejahtera 29	/20c	Jakarta	Indonesia	40235	Indonesia	2	[NULL]
3	Andreas Adiputra	[NULL]	[NULL]	Jl Banda 01C	[NULL]	Surabaya	Indonesia	40123	Indonesia	3	[NULL]
4	Diki Agustina	[NULL]	[NULL]	Jl Subang 92	/60a	Tangerang	Indonesia	40152	Indonesia	4	[NULL]
5	Ajeng Sri Wulan	[NULL]	[NULL]	Jl Jakarta 4	[NULL]	Bandung	Indonesia	40179	Indonesia	4	[NULL]

No. 1 Soal :

Customers => stores data customer

Jawaban Query Soal No. 1 :

```
CREATE TABLE customers(  
    customerNumber INT identity(1,1) primary key,  
    customerName VARCHAR(50) NOT NULL,  
    contactLastName VARCHAR(20),  
    contactFirstName VARCHAR(20),  
    addressLine1 VARCHAR(50) NOT NULL,  
    addressLine2 VARCHAR(50),  
    city VARCHAR(20) NOT NULL,  
    state VARCHAR(20) NOT NULL,  
    postalCode VARCHAR(8) NOT NULL,  
    country VARCHAR(20) NOT NULL,  
    salesRepEmployeeNumber INT NOT NULL,  
    creditLimit DECIMAL(19,2)  
);  
  
INSERT INTO customers (customerName, contactLastName, contactFirstName, addressLine1, addressLine2, city,  
state, postalCode, country, salesRepEmployeeNumber, creditLimit)  
VALUES ('Dhanny Rachmat', NULL, NULL, 'Jl Meikarta 99', NULL, 'Bandung', 'Indonesia', '40177', 'Indonesia', 1,  
NULL),  
('Ferdinand Lanvino', NULL, NULL, 'Jl Sejahtera 29', '/20c', 'Jakarta', 'Indonesia', '40235', 'Indonesia', 2, NULL),  
('Andreas Adiputra', NULL, NULL, 'Jl Banda 01C', NULL, 'Surabaya', 'Indonesia', '40123', 'Indonesia', 3, NULL),  
('Diki Agustina', NULL, NULL, 'Jl Subang 92', '/60a', 'Tangerang', 'Indonesia', '40152', 'Indonesia', 4, NULL),  
('Ajeng Sri Wulan', NULL, NULL, 'Jl Jakarta 4', NULL, 'Bandung', 'Indonesia', '40179', 'Indonesia', 4, NULL);  
  
SELECT * FROM customers;
```

Screenshoot Soal No.2 :

	123 product	abc product	123 product	abc product	abc product	123 quantity	123 buyPrice	123 MSRP
1	1	VARIO	1	Honda	Sepeda motor Honda VARIO	50	15,000,000	14,500,000
2	2	NMAX	1	Yamaha	Sepeda motor Yamaha NMAX	50	22,000,000	20,000,000
3	3	RUSH	2	Toyota	Mobil Toyota RUSH	20	200,000,000	190,000,000
4	4	XENIA	2	Daihatsu	Mobil Daihatsu XENIA	20	180,000,000	170,000,000
5	5	Ideapad	3	Lenovo	Laptop Lenovo Ideapad	15	8,000,000	7,000,000
6	6	S28	4	Samsung	Smartphone Samsung S28	30	11,000,000	10,000,000
7	7	IPad	5	Apple	Tablet IPad	30	9,000,000	8,000,000

No. 2 Soal :

Products => stores daftar/list model product (dalam hal ini bisa mobil/motor dll)

Jawaban Query Soal No. 1 :

CREATE TABLE products(

productCode **INT identity(1,1) primary key**,

productName **VARCHAR(30) NOT NULL**,

productLine **INT NOT NULL**,

productVendor **VARCHAR(30) NOT NULL**,

productDescription **VARCHAR(50) NOT NULL**,

quantityInStock **INT DEFAULT 1**,

buyPrice **DECIMAL(19,2) NOT NULL**,

MSRP **DECIMAL(19,2) NOT NULL**

);

INSERT INTO products (productName, productLine, productVendor, productDescription, quantityInStock, buyPrice, MSRP)

VALUES ('VARIO', 1, 'Honda', 'Sepeda motor Honda VARIO', 50, 15000000, 14500000),

('NMAX', 1, 'Yamaha', 'Sepeda motor Yamaha NMAX', 50, 22000000, 20000000),

('RUSH', 2, 'Toyota', 'Mobil Toyota RUSH', 20, 200000000, 190000000),

('XENIA', 2, 'Daihatsu', 'Mobil Daihatsu XENIA', 20, 180000000, 170000000),

('Ideapad', 3, 'Lenovo', 'Laptop Lenovo Ideapad', 15, 8000000, 7000000),

('S28', 4, 'Samsung', 'Smartphone Samsung S28', 30, 11000000, 10000000),

('IPad', 5, 'Apple', 'Tablet IPad', 30, 9000000, 8000000);

SELECT * FROM products;

Screenshoot Soal No.3 :

	123 productLine	ABC textDescription	ABC htmlDescription	ABC image
1	1	Motor	<p>Ullamcorper velit lectus mus adipiscing.</p>	https://www.CBANK.id/Motor
2	2	Mobil	<p>Mobil velit lectus mus adipiscing.</p>	https://www.CBANK.id/Mobil
3	3	Laptop	<p>Laptop velit lectus mus adipiscing.</p>	https://www.CBANK.id/Laptop
4	4	Smartphone	<p>Smartphone velit lectus mus adipiscing.</p>	https://www.CBANK.id/Smartphone
5	5	Tablet	<p>Tablet velit lectus mus adipiscing.</p>	https://www.CBANK.id/Tablet

No. 3 Soal :

Productlines => stores daftar/list kategori product

Jawaban Query Soal No. 3 :

```
CREATE TABLE productlines(  
    productLine INT primary key NOT NULL,  
    textDescription VARCHAR(50) NOT NULL,  
    htmlDescription VARCHAR(200),  
    image VARCHAR(50)  
);  
  
INSERT INTO productlines (productLine, textDescription, htmlDescription, image)  
VALUES (1, 'Motor', '<p>Ullamcorper velit lectus mus adipiscing.</p>', 'https://www.CBANK.id/Motor'),  
(2, 'Mobil', '<p>Mobil velit lectus mus adipiscing.</p>', 'https://www.CBANK.id/Mobil'),  
(3, 'Laptop', '<p>Laptop velit lectus mus adipiscing.</p>', 'https://www.CBANK.id/Laptop'),  
(4, 'Smartphone', '<p>Smartphone velit lectus mus adipiscing.</p>', 'https://www.CBANK.id/Smartphone'),  
(5, 'Tablet', '<p>Tablet velit lectus mus adipiscing.</p>', 'https://www.CBANK.id/Tablet');  
  
SELECT * FROM productlines;
```

Screenshoot Soal No.4 :

	123 orderNo	orderDate	requiredDate	shippedDate	ABC status	ABC comments	123 customerNumber
1	1	2021-10-13	2020-11-01	2020-11-02	Packing	Dont late	1
2	2	2021-10-13	2020-11-23	2020-11-25	Shipping	Dont late	2
3	3	2021-10-13	2020-11-05	2020-11-12	Courier	For my birthday	3
4	4	2021-10-13	2020-11-03	2020-11-08	Waiting Vendor	Fragile	4
5	5	2021-10-13	2020-11-08	2020-11-10	Lost	Dont late	5

No. 4 Soal :

Orders => store Order Sales oleh customer

Jawaban Query Soal No. 4 :

```
CREATE TABLE orders(  
    orderNumber INT identity(1,1) primary key,  
    orderDate DATE DEFAULT GETDATE(),  
    requiredDate DATE NOT NULL,  
    shippedDate DATE NOT NULL,  
    status VARCHAR(20),  
    comments VARCHAR(50),  
    customerNumber INT NOT NULL  
);  
  
INSERT INTO orders (requiredDate, shippedDate, status, comments, customerNumber)  
VALUES ('2020-11-01', '2020-11-02', 'Packing', 'Dont late', 1),  
( '2020-11-23', '2020-11-25', 'Shipping', 'Dont late', 2),  
( '2020-11-05', '2020-11-12', 'Courier', 'For my birthday', 3),  
( '2020-11-03', '2020-11-08', 'Waiting Vendor', 'Fragile', 4),  
( '2020-11-08', '2020-11-10', 'Lost', 'Dont late', 5);  
  
SELECT * FROM orders;
```

Screenshoot Soal No.5 :

	123 orderNum	123 productCod	123 quantityOrde	123 priceEach	123 orderLineNu
1	1	1	1	14,600,000	1
2	2	7	4	8,500,000	2
3	3	6	1	11,000,000	3
4	4	6	2	11,000,000	4
5	5	3	1	190,000,000	5

No. 5 Soal :

OrderDetails => store Item Order sales dalam setiap order sales

Jawaban Query Soal No. 5 :

```
CREATE TABLE orderdetails(  
    orderNumber INT NOT NULL,  
    productCode INT NOT NULL,  
    quantityOrdered INT NOT NULL,  
    priceEach DECIMAL(19,2) NOT NULL,  
    orderLineNumber INT NOT NULL  
);  
  
INSERT INTO orderdetails (orderNumber, productCode, quantityOrdered, priceEach, orderLineNumber)  
VALUES (1, 1, 1, 14600000, 1),  
(2, 7, 4, 8500000, 2),  
(3, 6, 1, 11000000, 3),  
(4, 6, 2, 11000000, 4),  
(5, 3, 1, 190000000, 5);  
  
SELECT * FROM orderdetails;
```

Screenshoot Soal No.6 :

	customerID	checkNum	paymentDate	amount
1	1	1	2021-10-13	14,600,000
2	2	2	2021-10-13	34,000,000
3	3	3	2021-10-13	11,000,000
4	4	4	2021-10-13	22,000,000
5	5	5	2021-10-13	190,000,000

No. 6 Soal :

Payments => store Pembayaran oleh customer sesuai dengan akun pembayaran

Jawaban Query Soal No. 6 :

```
CREATE TABLE payments(  
    customerNumber INT NOT NULL,  
    checkNumber INT identity(1,1) primary key,  
    paymentDate DATE DEFAULT GETDATE(),  
    amount DECIMAL(19,2) NOT NULL  
);  
  
INSERT INTO payments (customerNumber, amount)  
VALUES (1, 146000000),  
(2, 340000000),  
(3, 110000000),  
(4, 220000000),  
(5, 1900000000);  
  
SELECT * FROM payments;
```

Screenshoot Soal No.7 :

	123 employeeId	ABC lastName	ABC firstName	ABC extensi	ABC email	123 officeG	ABC reportsTo	ABC jobTitle
1	1	Sanjaya	Indra	[NULL]	indra@bank.com	1	Budiman	SalesRep
2	2	Wijaya	Rahmat	[NULL]	rahmat@bank.com	1	Budiman	SalesRep
3	3	Sanjaya	Dani	[NULL]	dani@bank.com	1	Budiman	SalesRep
4	4	Susanti	Susi	[NULL]	susi@bank.com	1	Budiman	SalesRep
5	5	[NULL]	Willyanti	[NULL]	willyanti@bank.com	1	Wicaksono	Officer

No. 7 Soal :

Employee => store informasi karyawan dalam sebuah organisasi struktur

Jawaban Query Soal No. 7 :

```
CREATE TABLE employees(  
    employeeNumber INT identity(1,1) primary key,  
    lastName VARCHAR(20),  
    firstName VARCHAR(20) NOT NULL,  
    extension VARCHAR(20),  
    email VARCHAR(20) NOT NULL,  
    officeCode INT NOT NULL,  
    reportsTo VARCHAR(20) NOT NULL,  
    jobTitle VARCHAR(20) NOT NULL  
);  
  
INSERT INTO employees (lastName, firstName, extension, email, officeCode, reportsTo, jobTitle)  
VALUES ('Sanjaya', 'Indra', NULL, 'indra@bank.com', 1, 'Budiman', 'SalesRep'),  
( 'Wijaya', 'Rahmat', NULL, 'rahmat@bank.com', 1, 'Budiman', 'SalesRep'),  
( 'Sanjaya', 'Dani', NULL, 'dani@bank.com', 1, 'Budiman', 'SalesRep'),  
( 'Susanti', 'Susi', NULL, 'susi@bank.com', 1, 'Budiman', 'SalesRep'),  
( NULL, 'Willyanti', NULL, 'willyanti@bank.com', 1, 'Wicaksono', 'Officer');  
  
SELECT * FROM employees;
```

Screenshoot Soal No.8 :

`SELECT * FROM Offices;` Enter a SQL expression to filter results (use Ctrl+Space)

	123 officeCode	ABC city	ABC phone	ABC addressLine1	ABC addressLine2	ABC state	ABC country	ABC postalCode	ABC territory
1	1	Bandung	08911111	Jl Jawa 82	[NULL]	Indonesia	Indonesia	40122	Bandung
2	2	Bandung	08911112	Jl Banda 22	/90c	Indonesia	Indonesia	40122	[NULL]
3	3	Bandung	08911113	Jl Subang 18	[NULL]	Indonesia	Indonesia	40125	Bandung

No. 8 Soal :

Offices => store data sales office

Jawaban Query Soal No. 8 :

```
CREATE TABLE offices(  
    officeCode INT identity(1,1) primary key,  
    city VARCHAR(20) NOT NULL,  
    phone VARCHAR(20) NOT NULL,  
    addressLine1 VARCHAR(50) NOT NULL,  
    addressLine2 VARCHAR(50),  
    state VARCHAR(20) NOT NULL,  
    country VARCHAR(20) NOT NULL,  
    postalCode VARCHAR(20) NOT NULL,  
    territory VARCHAR(20)  
);  
  
INSERT INTO offices (city, phone, addressLine1, addressLine2, state, country, postalCode, territory)  
VALUES ('Bandung', '08911111', 'Jl Jawa 82', NULL, 'Indonesia', 'Indonesia', '40122', 'Bandung'),  
('Bandung', '08911112', 'Jl Banda 22', '/90c', 'Indonesia', 'Indonesia', '40122', NULL),  
('Bandung', '08911113', 'Jl Subang 18', NULL, 'Indonesia', 'Indonesia', '40125', 'Bandung');  
  
SELECT * FROM offices;
```

Improvement Relation Query

	customerNumber	customerName	orderNumber	quantityOrdered	productName	productLine	SalesRep
1	1	Dhanny Rachmat	1	1	VARIO	1	Indra Sanjaya
2	2	Ferdinand Larvino	2	4	IPad		5 Rahmat Wijaya
3	3	Andreas Adiputra	3	1	S28		4 Dani Sanjaya
4	4	Diki Agustina	4	2	S28		4 Susi Susanti
5	5	Ajeng Sri Wulan	5	1	RUSH		2 Susi Susanti

Code :

```
SELECT ctm.customerNumber, ctm.customerName, od.orderNumber, ods.quantityOrdered, pro.productName,  
pro.productLine, (emp.firstName + ' ' + emp.lastName) as SalesRep  
FROM customers ctm  
JOIN orders od ON ctm.customerNumber = od.customerNumber  
JOIN orderDetails ods ON od.orderNumber = ods.orderNumber  
JOIN products pro ON ods.productCode = pro.productCode  
JOIN employees emp ON ctm.salesRepEmployeeNumber = emp.employeeNumber;
```