`04-03-2020 (11.30)

**FINDING (MENEMUKAN PADA DATA) WHERE**

SELECT \*

FROM customers

WHERE state = 'VA' OR state = 'GA' OR State = 'FL'

Bisa diganti WHERE state IN (‘VA’, ‘GA’, ‘FL’)

SELECT \*

FROM customers

WHERE points >= 1000 AND points <= 3000

WHERE points BETWEEN 1000 AND 3000

SELECT \*

FROM customers

WHERE last\_name LIKE 'b%' (nama awal B)

Atau

WHERE last\_name REGEXP 'field|mac'

* ^ beginning
* $ end
* | pembatas banyak
* ….[abdc]/…
* …[a-f]/…

**MENCARI DATA YANG HILAN**G

SELECT \*

FROM orders

WHERE shipped\_date is null

**MENCARI NAMA PERTAMA ORDER (DIURUT DARI PERTAMA) DAN DESC MENGURUT DARI TEAKHIR**

SELECT \*

FROM customers

ORDER BY first\_name DESC

(ORDER BY DIURUT DARI PERTAMA, KALAU DESC URUT TRAKIR)

09-03-2020

**MENCARI NAMA DALAM TABEL DARI BIRTHDATE YANG ADA**

SELECT first\_name, Last\_name

FROM customers

ORDER BY birth\_date

ATAU

ORDER BY 1, 2 (kolom 1 dan 2 berurutan)

**MEMILIH DAN MENAMBAH KOLOM DRI HASIL KALI**

SELECT \*, quantity \* unit\_price AS total

FROM order\_items

WHERE order\_id = 2

ORDER BY quantity \* unit\_price DESC

**MEMILIH 3 DATA PERTAMA (LIMIT)**

SELECT \*

FROM customers

LIMIT 3

**MEMILIH 6 DATA SETELAH NOMOR 2 (BISA NOMOR LAIN)**

SELECT \*

FROM customers

LIMIT 2, 6

**MENGABUNGKAN 2 TABEL YANG BERBEDA PAKE JOIN (ON) untuk mempaskan tabel**

SELECT \*

FROM orders

JOIN customers

ON orders.customer\_id = customers.customer\_id

(ordes.customer\_id = … dibuat biar selaras datanya)

SELECT order\_id, c.customer\_id, first\_name, last\_name

FROM orders o (alias kependekan)

JOIN customers c

ON o.customer\_id = c.customer\_id

(Maka harus diganti aliasnya biar pendek)

**Bisa diganti dgn (tapi hati2)**

SELECT \*

FROM orders o, customers c

WHERE o.customer\_id = c.customer\_id

(tapi tidak bisa untuk mencari seluruh data jika ada null

**BISA DIGANTI YANG LEBIH SINGKAT DENGAN USING, GA PAKE LAGI ON. OKE**

SELECT

o.order\_id,

c.first\_name,

sh.name AS shipper

FROM orders o

LEFT JOIN customers c

USING (customer\_id)

LEFT JOIN shippers sh

USING (shipper\_id)

BISA DIGANTI LGAI YANG LEBIH SIMPLE PAKE NATURAL JOIN, NAMUN DIANJURKAN TIDAK PAKAI KARENA DATANYA HANYA MENEBAK DAN BISA TIDAK VALID.

SELECT \*

FROM orders

NATURAL JOIN customers

**MENGGABUNGKAN TABLE DARI DUA DATABASE YANG BERBEDA**

SELECT \*

FROM order\_items o

JOIN sql\_inventory.products p

ON o.product\_id = p.product\_id

**10-03-2020**

**MENGGABUNGKAN 2 DATA YANG SAMA DILIHAT SIAPA MANAGERNYA (PAKAI INISIAL)**

SELECT \*

FROM employees e

JOIN employees m

ON e.reports\_to = m.employee\_id

BISA PAKE LEFT UNTUK MENGETAHUI DATA NULL

**MENGGABUNGKAN 3 DATA**

SELECT o.order\_id,

o.order\_date,

c.first\_name,

os.name AS status

FROM orders o

JOIN customers c

ON o.customer\_id = c.customer\_id

JOIN order\_statuses os

ON o.status = os.order\_status\_id

ORDER BY o.order\_id

(TABEL yg diinginkin mengikuti table yang dasar alias data valid)

**MEMILIH SEMUA TABEL VALID ATAU TIDAK (LEFT, TABEL KIRI DIIKUT KANAN. RIGHT TABEL KANAN DIGIKUT KIRI)**

SELECT

c.customer\_id,

c.first\_name,

o.order\_id

FROM orders o

RIGHT JOIN customers c

ON c.customer\_id = o.customer\_id

ORDER BY c.customer\_id

**CONTOH 2**

SELECT

c.customer\_id,

c.first\_name,

o.order\_id,

sh.name AS Shipper

FROM customers c

LEFT JOIN orders o

ON c.customer\_id = o.customer\_id

LEFT JOIN shippers sh

ON o.shipper\_id = sh.shipper\_id

**EXERCISE**

SELECT

order\_date,

order\_id,

first\_name,

sh.name AS shipper,

os.name AS status

FROM orders o

LEFT JOIN customers c

ON o.customer\_id = c.customer\_id

LEFT JOIN shippers sh

ON o.shipper\_id = sh.shipper\_id

LEFT JOIN order\_statuses os

ON o.status = os.order\_status\_id

**PAKE USING LEBIH LEBIH DARI 2 COLUMN BERBEDA**

SELECT \*

FROM order\_items oi

LEFT JOIN order\_item\_notes oin

USING (order\_id, product\_id)

**EXERCISE**

SELECT

date,

c.name AS client,

amount,

pm.name

FROM payments p

LEFT JOIN clients c

USING (client\_id)

LEFT JOIN payment\_methods pm

ON p.payment\_method = pm.payment\_method\_id

13-03-2020

**PAKE CROSS JOIN . MISAL (A, B) CROSS JOIN (C, D) MAKA (AC, AD, BC, BD)**

SELECT

sh.name AS shipper,

p.name AS product

FROM shippers sh

CROSS JOIN products p

ORDER BY sh.name

**PAKE ACTIVE (Aktif) & ARCHIVED (sudah lewat/simpan) UNTUK MENGETAHUI STATUSNYA**

SELECT

order\_id,

order\_date,

'Active' AS Status

FROM orders

WHERE order\_date >= '2019-01-01'

SELECT

order\_id,

order\_date,

'Archived' AS Status

FROM orders

WHERE order\_date <= '2019-01-01'

**PAKE UNION UNTUK MENGGABUNGKAN 2 QUERY.**

**BISA DISEBUT MENGGABUNGKAN 2 ROW YANG BERBEDA**

SELECT

order\_id,

order\_date,

'Active' AS Status

FROM orders

WHERE order\_date >= '2019-01-01'

UNION

SELECT

order\_id,

order\_date,

'Archived' AS Status

FROM orders

WHERE order\_date <= '2019-01-01'

**EXERCISE**

SELECT

customer\_id,

first\_name,

points,

'Gold' AS Status

FROM customers

WHERE points >'3000'

UNION

SELECT

customer\_id,

first\_name,

points,

'Silver ' AS Status

FROM customers

WHERE points BETWEEN 2000 AND 3000

UNION

SELECT

customer\_id,

first\_name,

points,

'Bonze' AS Status

FROM customers

WHERE points <2000

ORDER BY first\_name

14-03-2020

**CARA MEMASUKAN DATA PADA TABEL.**

INSERT INTO customers (

first\_name,

last\_name,

birth\_date,

address,

city,

state

)

VALUES (

'Samuel',

'Rizal',

'1990-01-01',

'Geuceu Komplek',

'Banda Aceh',

'IN'

)

**CARA MEMASUKAN DATA PADA TABEL LEBIH CEPAT. PAKE DEFAULT UNTUK OTOMATIS MENYESUAIKAN NOMOR DERET DAN JUGA KALAU NULL**

INSERT INTO customers

VALUES (

DEFAULT,

'John',

'Smith',

'1990-01-01',

NULL,

'address',

'city',

'CA',

DEFAULT

)

**KALAU MAU MANUAL** **GINI**

INSERT INTO customers

VALUES (

'14',

'Samuel',

'Rizal',

'1990-01-01',

'082267523161',

'Geuceu Komplek',

'Banda Aceh',

'IN',

'2200'

)

**CARA MEMASUKAN BANYAK DATA PADA 1 KOLOM**

INSERT INTO shippers (name)

VALUES ('shipper1'),

('shipper2'),

('shipper3')

Nomor gausah dibuat krn akan mengikuti (AI setting terconteng)

**EXCERCISE**

INSERT INTO products

VALUES (DEFAULT, 'Sie reboh', '71', '6.33'),

(DEFAULT, 'Keong Racun', '91', '4.94'),

(DEFAULT, 'Sop Iga', '17', '2.23')

INSERT INTO products (name, quantity\_in\_stock, unit\_price)

VALUES ('Tes Aja', '71', '6.33'),

('HEHE', '91', '4.94')

**LAST INSERT ID UNTUK MEMASUKAN DATA KE PALING TERAKHIR> KALAU CONTOH DIBAWAH BAGAIMANA MEMESUKAN DATA KE DUA TABEL BERBEDA SEKALIGUS**

INSERT INTO orders (customer\_id, order\_date, status)

VALUES (1, '2020-01-02', 1);

INSERT INTO order\_items

VALUES

(LAST\_INSERT\_ID(), 1, 1, 2.95),

(LAST\_INSERT\_ID(), 2, 1, 3.95)

CTRL+SHIFT ENTER

**MEMBUAT TABLE**

CREATE TABLE orders\_archived AS

SELECT \* FROM orders

KLIK KANAN TABEL PILIH TRUNCATED UNTUK MENGHILAGKAN DATA TABLE PADA TABEL

**MEMASUKAN DATA TABLE ORDERS YANG SUDAH DISORTIR (DIPILIH DIBAWAH 2019 DAN DIMASUKAN KE DALAM ORDER\_ARCHIVED)**

INSERT INTO orders\_archived

SELECT \*

FROM orders

WHERE order\_date < '2019-01-01'

**EXERCISE**

CREATE TABLE invoives\_archived AS

SELECT

i.invoice\_id,

i.number,

c.name AS client,

i.invoice\_total,

i.payment\_total,

i.invoice\_date,

i.payment\_date,

i.due\_date

FROM invoices i

JOIN clients c

USING (client\_id)

WHERE payment\_date IS NOT NULL

**MENGUPDATE TABLE DAN CARA MENGHILANGKAN DATA**

-- UPDATE invoices

-- SET payment\_total = 10, payment\_date = '2019-03-1'

-- WHERE invoice\_id = 1

UPDATE invoices

SET payment\_total = 0, payment\_date = NULL

WHERE invoice\_id = 1

18-03-2020

UPDATE invoices

SET payment\_total = invoice\_total \* 0.5,

payment\_date = due\_date

WHERE invoice\_id = 3

**NEW BELAJAR HOW TO MAKE DATABASE ANGGOTA FIM**

1. **CREATE DATABASE**

CREATE DATABASE FIM\_ANGGOTA;

1. **BUAT TABEL**

CREATE TABLE database\_fim\_aceh

(

No INT PRIMARY KEY,

NAMA VARCHAR(50),

NO\_HP VARCHAR(50),

EMAIL VARCHAR(50),

DOMISILI VARCHAR(50)

);

DESC database\_fim\_aceh

1. **MASUKIN DATA PADA TABEL**

INSERT INTO database\_fim\_aceh

(No, NAMA, NO\_HP, EMAIL, DOMISILI)

VALUES

(2, 'NASAR', '082267523161', 'mhdfachrizal@gmail.com', 'Banda Aceh'),

(3, 'NASAR', '082267523161', 'mhdfachrizal@gmail.com', 'Banda Aceh')

1. EDIT DATA