# MODUL - WEEK.06
# DATA MANIPULATION – Basic Queries 2

## I.  DESKRIPSI TEMA
Construct query of SQL that suitable with the problem

## II.  CAPAIAN PEMBELAJARAN MINGGUAN (SUB-CAPAIAN PEMBELAJARAN)
CLO5-SUB-CLO6: Students are able to implement SQL Data Manipulation (C3):
Simple SQL command, Sorting the query results, Date Functions, Character Functions,
Operator <, >, =, %, /

## III. PENUNJANG PRAKTIKUM
1.  Microsoft SQL Server management studio, SQL Server 2019
2.  Module Practicum
3.  These Module have been adapted from Connolly, T., & Begg, C. (2015).
    Database Systems: A Practical Approach to Design, Implementation, and Management.
    6th edition. Pearson Education. USA. ISBN: 978-1-292-06118-4, Chapter 6

## IV. LANGKAH-LANGKAH PRAKTIKUM
1.  **Select, Simple Queries, Sorting**

2.  **Syntax**
    **Select**
    SELECT "field_name" FROM  table_name

    **Where**
    SELECT "field_name"
    FROM  table_name
    WHERE {condition}

    **Between**
    SELECT "field_name"
    FROM  table_name
    WHERE "field_name" BETWEEN 'value1' AND 'value2'
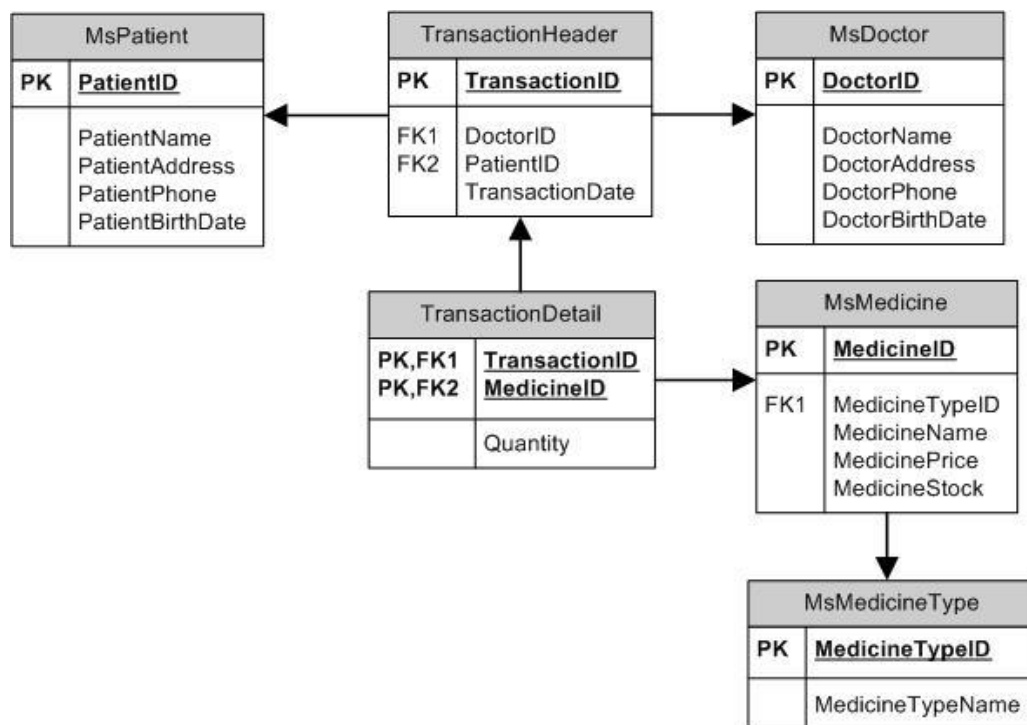
**Like**
SELECT "field_name"
FROM  table_name
WHERE "field_name" LIKE {PATTERN}

**Order by**
SELECT "field_name"
FROM  table_name
WHERE {condition}
ORDER BY "field_name" [ASC | DESC]

3. **Relational Table**

## 4. Assessment

a. Tampilkan DoctorID, DoctorName, dan DoctorPhone dari tabel MsDoctor.

| | DoctorID | DoctorName | DoctorPhone |
|---|---|---|---|
| 1 | DC001 | Yogie Soesanto | +62216600123 |
| 2 | DC002 | Nico Natalie | +628181231345 |
| 3 | DC003 | Julian Wesley | +628181212 |
| 4 | DC004 | Mellisa Pratiwi | +6221112331 |
| 5 | DC005 | Indra Saswita | +62216600127 |
| 6 | DC006 | Franky Quo | +62816609123 |
| 7 | DC007 | Livia Ashianti | +62816699111 |
| 8 | DC008 | Yudy Purnama | +6221316623 |
| 9 | DC009 | Budiman | +6289991221 |
| 10 | DC010 | Andy Putra | +6287877991 |

b. TampilkanMedicineID, MedicineName, dan MedicinePrice dimana MedicineStock lebih besar dari 100.

| | MedicineID | MedicineName | MedicinePrice |
|---|---|---|---|
| 1 | ME002 | Aspirin | 5000 |
| 2 | ME005 | Panadol | 6000 |
| 3 | ME006 | Komix | 2000 |

c. Tampilkan PatientName dan PatientAddress dimana tahun kelahiran pasien lebih besar dari 2000.
**(year)**

| | PatientName | PatientAddress |
|---|---|---|
| 1 | Calvin | Syahdan Street |
| 2 | Ferlim Putra | Kapuk Street |
| 3 | Andi Juardi | Google Street |

d. Tampilkan PatientID, PatientName, dan PatientPhone dimana 3 karakter pertama PatientPhone adalah '021'.
**(left)**

| | PatientID | PatientName | PatientPhone |
|---|---|---|---|
| 1 | PA004 | Falerian Jonathan | 021921125252 |
| 2 | PA005 | Gradiyanto Sanjaya | 02198776654 |
| 3 | PA008 | Andi Juardi | 0219783968 |
| 4 | PA010 | Davin Timothy | 0219780642 |

e. Tampilkan TransactionID dan TransactionDate **dimana** bulan dari TransactionDate di antara 5 dan 7.

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**(month, between)**

| | TransactionID | TransactionDate |
|---|---|---|
| 1 | TR003 | 2011-07-23 |
| 2 | TR004 | 2011-05-05 |
| 3 | TR010 | 2011-05-01 |
| 4 | TR011 | 2010-06-07 |
| 5 | TR015 | 2012-07-31 |

f.  Tampilkan DoctorID, DoctorName, dan DoctorAddress **dimana** huruf pertama DoctorName merupakan huruf vokal (a,i,u,e,o).
**(like)**

| | DoctorID | DoctorName | DoctorAddress |
|---|---|---|---|
| 1 | DC005 | Indra Saswita | Sunter Street |
| 2 | DC010 | Andy Putra | Angry Street Street |

g.  Tampilkan PatientNumber (didapat dari PatientID dengan mengubah 'PA' menjadi 'Patient #'), PatientName, dan PatientAddress **dimana** PatientAddress terdiri dari 3 kata atau lebih.
**(replace, like)**

| | PatientNumber | PatientName | PatientAddress |
|---|---|---|---|
| 1 | Patient #001 | Fifilia | Hard Stone Street |
| 2 | Patient #010 | Davin Timothy | Strong Horse Street |

h.  Tampilkan TransactionID dan TransactionDate **dimana** 3 digit terakhir dari DoctorID yang melayani merupakan bilangan genap. Urutkan data-data tersebut berdasarkan TransactionDate secara *ascending*.
**(right, order by)**

| | TransactionID | TransactionDate |
|---|---|---|
| 1 | TR010 | 2011-05-01 |
| 2 | TR003 | 2011-07-23 |
| 3 | TR001 | 2011-10-22 |
| 4 | TR008 | 2012-03-02 |
| 5 | TR015 | 2012-07-31 |
| 6 | TR009 | 2012-09-25 |
| 7 | TR007 | 2012-10-24 |

i.  Tampilkan PatientID, PatientName, PatientBirthDate, dan TransactionDate **dimana** pasien tersebut memiliki umur di bawah 17 tahun saat melakukan transaksi. Urutkan data-data tersebut berdasarkan PatientBirthDate dari pasien yang termuda.

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**(datediff, order by)**

| | PatientID | PatientName | PatientBirthDate | TransactionDate |
|---|---|---|---|---|
| 1 | PA008 | Andi Juardi | 2005-11-30 | 2008-02-29 |
| 2 | PA008 | Andi Juardi | 2005-11-30 | 2010-06-07 |
| 3 | PA008 | Andi Juardi | 2005-11-30 | 2006-10-27 |
| 4 | PA002 | Calvin | 2003-12-23 | 2012-09-25 |
| 5 | PA003 | Ferlim Putra | 2001-08-02 | 2011-07-23 |
| 6 | PA003 | Ferlim Putra | 2001-08-02 | 2011-05-01 |
| 7 | PA007 | Junius | 1998-03-03 | 2012-10-24 |

j.  Tampilkan MedicineID, MedicineName, TypeName (dengan format *uppercase*), dan MedicineStock (dengan menambahkan kata ' pcs' di akhir) **dimana** MedicineStock merupakan bilangan kelipatan 25 dan panjang karakter MedicineName kurang dari 10 karakter. Urutkan data-data tersebut berdasarkan MedicineName dari huruf terkecil.

**(upper, cast, len, order by)**

| | MedicineID | MedicineName | TypeName | MedicineStock |
|---|---|---|---|---|
| 1 | ME002 | Aspirin | TABLET | 200 pcs |
| 2 | ME007 | Claritin | TABLET | 25 pcs |
| 3 | ME008 | Decadryl | SYRUP | 25 pcs |
| 4 | ME006 | Komix | SYRUP | 400 pcs |
| 5 | ME005 | Panadol | TABLET | 450 pcs |

**REFERENSI**

Connolly, T., & Begg, C. (2015). Database Systems: A Practical Approach to Design, Implementation, and Management. 6th edition. Pearson Education. USA. ISBN: 978-1-292-06118-4, Chapter 6