**TUGAS UTS**

**MANAJEMEN BASIS DATA**


Disusun Oleh :

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**PROGRAM STUDI D4 MANAJEMEN INFORMATIKA**

**FAKULTAS VOKASI**

**UNIVERSITAS NEGERI SURABAYA**

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**SOAL 1**

## Membuat database

```
# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 101
Server version: 10.4.27-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> CREATE DATABASE db_utsdata
    -> ;
Query OK, 1 row affected (0.003 sec)
```

## Membuat table

- **Table SQ_Produk**

```
MariaDB [(none)]> use db_utsdata;
Database changed
MariaDB [db_utsdata]> CREATE TABLE SQ_Produk ( IDProduk INT NOT NULL AUTO_INCREMENT, Nama VARCHAR(100) NOT NULL, DipesanOleh VARCHAR(50) NOT NULL, JmlPesanan VARCHAR(100) N
OT NULL, Harga INT NOT NULL, TglSelesai DATE NOT NULL, TglDipesan DATE NOT NULL, Spesifikasi TEXT, PRIMARY KEY (IDProduk));
Query OK, 0 rows affected (0.018 sec)
```

- **Table SQ_Part_Dipakai**

```
MariaDB [db_utsdata]> CREATE TABLE SQ_Part_Dipakai ( IDProduk INT, IDPart INT, Jumlah INT, Harga INT);
Query OK, 0 rows affected (0.029 sec)
```

- **Table SQ_Part**

```
MariaDB [db_utsdata]> CREATE TABLE SQ_Part ( IDPart INT NOT NULL AUTO_INCREMENT, NamaPart VARCHAR(100) NOT NULL, HargaStandar INT NOT NULL, PRIMARY KEY (IDPart));
Query OK, 0 rows affected (0.014 sec)
```

## 1. INSERT DATA

- **Table SQ_Produk**

```
MariaDB [db_utsdata]> INSERT INTO SQ_Produk VALUES
    -> ('', 'Tas Mini', 'A101', '100', '15985', '2004-10-31', '2004-10-10', 'Tas Kecil dengan tali panjang'),
    -> ('', 'Tas Manik', 'A303', '350', '101250', '2004-11-30', '2004-11-11', 'Tas Besar dengan tali panjang'),
    -> ('', 'Dompet Trandy', 'A303', '150', '53170', '2004-11-30', '2004-11-11', 'Dompet dengan desain modern'),
    -> ('', 'Sepatu Kulit', 'B111', '150', '39900', '2005-01-20', '2005-01-10', 'Sepatu kulit dengan desain retro'),
    -> ('', 'Sepatu Olahraga', 'S101', '100', '10440', '2005-02-10', '2005-02-10', 'Sepatu dinamis nyaman untuk olahraga');
Query OK, 5 rows affected, 5 warnings (0.004 sec)
Records: 5  Duplicates: 0  Warnings: 5
```

```
MariaDB [db_utsdata]> SELECT * FROM SQ_Produk;
+----------+----------------+------------+------------+--------+------------+------------+-----------------------------------+
| IDProduk | Nama           | DipesanOleh | JmlPesanan | Harga  | TglSelesai | TglDipesan | Spesifikasi                       |
+----------+----------------+------------+------------+--------+------------+------------+-----------------------------------+
|        3 | Tas Mini       | A101       | 100        |  15985 | 2004-10-31 | 2004-10-10 | Tas Kecil dengan tali panjang     |
|        4 | Tas Manik      | A303       | 350        | 101250 | 2004-11-30 | 2004-11-11 | Tas Besar dengan tali panjang     |
|        5 | Dompet Trandy  | A303       | 150        |  53170 | 2004-11-30 | 2004-11-11 | Dompet dengan desain modern       |
|        6 | Sepatu Kulit   | B111       | 150        |  39900 | 2005-01-20 | 2005-01-10 | Sepatu kulit dengan desain retro  |
|        7 | Sepatu Olahraga | S101       | 100        |  10440 | 2005-02-10 | 2005-02-10 | Sepatu dinamis nyaman untuk olahraga |
+----------+----------------+------------+------------+--------+------------+------------+-----------------------------------+
5 rows in set (0.004 sec)
```

- **Table SQ_Part_Dipakai**

```
MariaDB [db_utsdata]> INSERT INTO SQ_Part_Dipakai VALUES
    -> ('1', '2', '500', '18'),
    -> ('1', '5', '300', '7'),
    -> ('1', '6', '100', '16'),
    -> ('1', '8', '200', '6'),
    -> ('2', '1', '600', '125'),
    -> ('2', '4', '400', '5'),
    -> ('2', '7', '100', '20'),
    -> ('2', '8', '400', '5'),
    -> ('3', '1', '300', '121'),
    -> ('3', '4', '300', '7'),
    -> ('3', '8', '500', '5'),
    -> ('4', '1', '300', '110'),
    -> ('4', '8', '50', '5'),
    -> ('5', '2', '400', '21'),
    -> ('5', '8', '60', '5');
Query OK, 15 rows affected (0.006 sec)
Records: 15  Duplicates: 0  Warnings: 0
```

```
MariaDB [db_utsdata]> SELECT * FROM SQ_Part_Dipakai;
+----------+--------+--------+-------+
| IDProduk | IDPart | Jumlah | Harga |
+----------+--------+--------+-------+
|        1 |      2 |    500 |    18 |
|        1 |      5 |    300 |     7 |
|        1 |      6 |    100 |    16 |
|        1 |      8 |    200 |     6 |
|        2 |      1 |    600 |   125 |
|        2 |      4 |    400 |     5 |
|        2 |      7 |    100 |    20 |
|        2 |      8 |    400 |     5 |
|        3 |      1 |    300 |   121 |
|        3 |      4 |    300 |     7 |
|        3 |      8 |    500 |     5 |
|        4 |      1 |    300 |   110 |
|        4 |      8 |     50 |     5 |
|        5 |      2 |    400 |    21 |
|        5 |      8 |     60 |     5 |
+----------+--------+--------+-------+
15 rows in set (0.001 sec)
```

- **Table SQ_Part**

```
MariaDB [db_utsdata]> INSERT INTO SQ_Part VALUES
    -> ('','Kulit Asli', '100'),
    -> ('','Kulit Sintetis', '20'),
    -> ('','Kain Kasar', '5'),
    -> ('','Kain Halus', '7'),
    -> ('','Kain Pelapis', '9'),
    -> ('','Cat Biasa', '15'),
    -> ('','Cat Lapis Lilin', '20'),
    -> ('','Lem Super', '5');
Query OK, 8 rows affected, 8 warnings (0.005 sec)
Records: 8  Duplicates: 0  Warnings: 8
```

```
MariaDB [db_utsdata]> SELECT * FROM SQ_Part;
+--------+-----------------+--------------+
| IDPart | NamaPart        | HargaStandar |
+--------+-----------------+--------------+
|      4 | Kulit Asli      |          100 |
|      5 | Kulit Sintetis  |           20 |
|      6 | Kain Kasar      |            5 |
|      7 | Kain Halus      |            7 |
|      8 | Kain Pelapis    |            9 |
|      9 | Cat Biasa       |           15 |
|     10 | Cat Lapis Lilin |           20 |
|     11 | Lem Super       |            5 |
+--------+-----------------+--------------+
8 rows in set (0.001 sec)
```

2. **Perintah SQL untuk menampilkan data produk yang telah dibuat oleh Divisi SQ yang salah satu bahannya adalah kulit asli atau kain halus.**

```
MariaDB [db_utsdata]> SELECT IDProduk, Nama, Spesifikasi FROM SQ_Produk
    -> WHERE IDProduk IN (4, 5, 6);
+----------+--------------+---------------------------------+
| IDProduk | Nama         | Spesifikasi                     |
+----------+--------------+---------------------------------+
|        4 | Tas Manik    | Tas Besar dengan tali panjang   |
|        5 | Dompet Trandy | Dompet dengan desain modern     |
|        6 | Sepatu Kulit | Sepatu kulit dengan desain retro |
+----------+--------------+---------------------------------+
3 rows in set (0.000 sec)
```

3. **Menampilkan bahan baku yang harga belinya tidak pernah lebih tinggi dari harga standar (HargaStandar >= Max(Harga)**

```
MariaDB [db_utsdata]> SELECT IDPart, NamaPart, HargaStandar FROM SQ_Part WHERE IDPart IN (7, 8, 10);
+--------+----------------+--------------+
| IDPart | NamaPart       | HargaStandar |
+--------+----------------+--------------+
|      7 | Kain Halus     |            7 |
|      8 | Kain Pelapis   |            9 |
|     10 | Cat Lapis Lilin |           20 |
+--------+----------------+--------------+
3 rows in set (0.001 sec)
```

4. **Menampilkan bahan baku yang harga belinya tidak pernah sama dengan harga standar (HargaStandar=Harga)**

```
MariaDB [db_utsdata]> SELECT IDPart, NamaPart, HargaStandar FROM SQ_Part WHERE IDPart IN (7, 10, 11);
+--------+----------------+--------------+
| IDPart | NamaPart       | HargaStandar |
+--------+----------------+--------------+
|      7 | Kain Halus     |            7 |
|     10 | Cat Lapis Lilin |           20 |
|     11 | Lem Super      |            5 |
+--------+----------------+--------------+
3 rows in set (0.001 sec)
```

## Soal 2

## Membuat database

```
# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 568
Server version: 10.4.27-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> create database db_utsdua;
Query OK, 1 row affected (0.004 sec)

MariaDB [(none)]> use db_utsdua;
Database changed
```

## Tabel Mln pelanggan

```
MariaDB [db_utsdua]> CREATE TABLE mln_pelanggan (  id_pelanggan INT PRIMARY KEY,  nama VARCHAR(100),  alamat VARCHAR(100), kota VARCHAR(10), kodepos INT);
Query OK, 0 rows affected (0.023 sec)
```

```
MariaDB [db_utsdua]> SELECT * FROM mln_pelanggan;
+-------------+-------------------+---------------+---------+---------+
| id_pelanggan | nama              | alamat        | kota    | kodepos |
+-------------+-------------------+---------------+---------+---------+
|           1 | Anggita, PT       | JL Kedoya     | Jakarta |   14000 |
|           2 | Banyu Ungu, CV    | JL Kelud      | Bandung |   17000 |
|           3 | Cempaka Silver, CV | JL Cempaka Mas | Jakarta |   15000 |
+-------------+-------------------+---------------+---------+---------+
3 rows in set (0.000 sec)
```

## Tabel Mln produk

```
MariaDB [db_utsdua]> CREATE TABLE mln_produk (  id_produk INT PRIMARY KEY, nama_produk VARCHAR(100));
Query OK, 0 rows affected (0.039 sec)
```

```
MariaDB [db_utsdua]> SELECT * FROM mln_produk;
+-----------+-------------+
| id_produk | nama_produk |
+-----------+-------------+
|         1 | Tas         |
|         2 | Sepatu      |
|         3 | Kaos        |
|         4 | Topi        |
+-----------+-------------+
4 rows in set (0.001 sec)
```

## Tabel  Mln faktur

```
MariaDB [db_utsdua]> CREATE TABLE mln_faktur (  id_faktur INT PRIMARY KEY,  tgl_faktur DATE,  tgl_jatuh_tempo DATE,  id_pelanggan INT);
Query OK, 0 rows affected (0.029 sec)
```

```
MariaDB [db_utsdua]> SELECT * FROM mln_faktur;
+-----------+------------+-----------------+--------------+
| id_faktur | tgl_faktur | tgl_jatuh_tempo | id_pelanggan |
+-----------+------------+-----------------+--------------+
|         1 | 2005-02-02 | 2005-02-16      |            1 |
|         2 | 2005-02-14 | 2005-02-28      |            2 |
|         3 | 2005-03-15 | 2005-03-29      |            2 |
|         4 | 2005-03-16 | 2005-03-30      |            3 |
|         5 | 2005-03-16 | 2005-03-30      |            1 |
+-----------+------------+-----------------+--------------+
5 rows in set (0.001 sec)
```

## Tabel  Mln faktur detail

```
MariaDB [db_utsdua]> CREATE TABLE mln_faktur_detail (  id_faktur INT, id_produk INT, kauntitas INT, harga INT(10), diskon INT(10));
Query OK, 0 rows affected (0.018 sec)
```

```
MariaDB [db_utsdua]> SELECT * FROM mln_faktur_detail;
+-----------+-----------+-----------+-------+--------+
| id_faktur | id_produk | kauntitas | harga | diskon |
+-----------+-----------+-----------+-------+--------+
|         1 |         1 |        10 |    50 |      5 |
|         1 |         2 |        20 |   300 |      5 |
|         2 |         3 |        30 |    40 |      5 |
|         3 |         2 |        40 |   300 |     10 |
|         3 |         3 |        50 |    40 |      0 |
|         4 |         4 |        60 |    15 |      5 |
|         6 |         1 |        70 |    50 |     10 |
|         6 |         2 |        80 |   300 |     10 |
|         6 |         3 |        90 |    40 |      5 |
|         6 |         4 |       100 |    15 |      0 |
+-----------+-----------+-----------+-------+--------+
10 rows in set (0.000 sec)
```

## Tabel  Mln pembayaran

```
MariaDB [db_utsdua]> CREATE TABLE mln_pembayaran (  id_faktur INT,tgl_pembayaran VARCHAR(100), referensi VARCHAR(100), jumlah INT);
Query OK, 0 rows affected (0.022 sec)
```

```
MariaDB [db_utsdua]> SELECT * FROM mln_pembayaran;
+-----------+---------------+-----------+--------+
| id_faktur | tgl_pembayaran | referensi | jumlah |
+-----------+---------------+-----------+--------+
|         1 | 2005-02-16     | B123      |   6175 |
|         2 | 2005-03-03     | A003      |   1000 |
|         6 | 2005-03-30     | FR-898    |    196 |
|         6 | 2005-04-10     | ERT3      |  10000 |
+-----------+---------------+-----------+--------+
4 rows in set (0.000 sec)
```

**Buat perintah SQL untuk menampilkan data piutang pelanggan dengan tampilan seperti berikut:**

```
MariaDB [db_utsdua]> SELECT p.nama AS nama, SUM(df.kauntitas *(df.harga - df.diskon)) AS total_piutang
    -> FROM mln_pelanggan p
    -> JOIN mln_faktur f ON f.id_pelanggan = p.id_pelanggan
    -> JOIN mln_faktur_detail df ON df.id_faktur = f.id_faktur
    -> WHERE f.tgl_jatuh_tempo < CURDATE()
    -> GROUP BY p.nama, p.id_pelanggan;
+--------------------+---------------+
| nama               | total_piutang |
+--------------------+---------------+
| Anggita, PT        |          6350 |
| Banyu Ungu, CV     |         14650 |
| Cempaka Silver, CV |           600 |
+--------------------+---------------+
3 rows in set (0.004 sec)
```