TUGAS PPLG

NAMA:ACHMAD HIDAYAT

ABSEN:01

JALANKAN MYSQL

```
dayy@dayy-HP-Laptop-14s-dq3xxx:/opt/lampp$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.43-0ubuntu0.24.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

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

mysql>
```

KELUAR DARI MYSQL

```
mysql> quit
Bye
dayy@dayy-HP-Laptop-14s-dq3xxx:/opt/lampp$
```

MEMERIKSA MYSQL JALAN ATAU TIDAK

CEK VERSI MYSQL

```
dayy@dayy-HP-Laptop-14s-dq3xxx:/opt/lampp$ mysqladmin -u root -p ping
Enter password:
mysqld is alive
mysqld is alive
dayy@dayy-HP-Laptop-14s-dq3xxx:/opt/lampp$ mysqladmin -u root -p version
Enter password:
mysqladmin  Ver 8.0.43-0ubuntu0.24.04.2 for Linux on x86_64 ((Ubuntu))
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affiliates. Other names may be trademarks of their respective
owners.

Server version          8.0.43-0ubuntu0.24.04.2
Protocol version        10
Connection              Localhost via UNIX socket
UNIX socket             /var/run/mysqld/mysqld.sock
Uptime:                 9 min 23 sec

Threads: 2  Questions: 12  Slow queries: 0  Opens: 130  Flush tables: 3
bles: 49  Queries per second avg: 0.021
```

MENAMPILKAN HELP MYSQL

```
dayy@dayy-HP-Laptop-14s-dq3xxx:/opt/lampp$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 13
Server version: 8.0.43-0ubuntu0.24.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

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

mysql> help
```

MENAMPILKAN TANGGAL

```
mysql> select curdate();
+------------+
| curdate()  |
+------------+
| 2025-11-01 |
+------------+
1 row in set (0.00 sec)

mysql>
```

MENAMPILKAN JAM

```
mysql> select curtime();
+-----------+
| curtime() |
+-----------+
| 10:43:22  |
+-----------+
1 row in set (0.00 sec)

mysql>
```

MENGGUNAKAN KALKULATOR

```
mysql> select 3+4*4/3-6;
+-----------+
| 3+4*4/3-6 |
+-----------+
|    2.3333 |
+-----------+
1 row in set (0.00 sec)

mysql>
```

MENAMPILKAN DATABASE

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| dbresto            |
| dbrestonormal      |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
6 rows in set (0.00 sec)

mysql>
```

MEMBUAT DATABASE

```
mysql> CREATE DATABASE dbtoko1;
Query OK, 1 row affected (0.00 sec)
```

MENGHAPUS DATABASE

```
mysql> DROP DATABASE dbtoko;
Query OK, 0 rows affected (0.01 sec)
```

MENGAKTIFKAN DATABASE

```
mysql> USE dbtoko;
Database changed
mysql>
```

MEMBUAT TABEL

```
mysql> CREATE TABLE kelompok_data (
    ->     idkelompok INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
    ->     kelompok VARCHAR(100)
    -> );
Query OK, 0 rows affected (0.01 sec)
```

MENAMPILKAN TABEL

```
mysql> SHOW TABLES;
+------------------+
| Tables_in_dbtoko |
+------------------+
| kelompok_data    |
| tblkelompok      |
+------------------+
2 rows in set (0.01 sec)

mysql>
```

MENAMPILKAN STRUKTUR TABEL

```
mysql> DESCRIBE tblkelompok;
+-----------+--------------+------+-----+---------+----------------+
| Field     | Type         | Null | Key | Default | Extra          |
+-----------+--------------+------+-----+---------+----------------+
| idkelompok | int         | NO   | PRI | NULL    | auto_increment |
| kelompok  | varchar(100) | YES  |     | NULL    |                |
+-----------+--------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)

mysql>
```

MEMBUAT TABLE BARANG

```
mysql> CREATE TABLE tblbarang (
    ->      idbarang INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
    ->      idkelompok INT,
    ->      barang VARCHAR(200),
    ->      stok FLOAT,
    ->      hargabeli FLOAT
    -> );
Query OK, 0 rows affected (0.01 sec)
```

MENAMBAH KOLOM

```
mysql> ALTER TABLE tblbarang add hargajual float;
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

MERUBAH TIPEDATA

```
mysql> ALTER TABLE tblbarang modify stok INT;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

MEMBERIKAN NILAI DEFAULT

```
mysql> ALTER TABLE tblbarang ALTER COLUMN stok SET DEFAULT 0;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

MENGHAPUS KOLOM

```
mysql> ALTER TABLE tblbarang ADD stokminimal INT;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0
mysql> ALTER TABLE tblbarang CHANGE stok stokbarang INT;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

MERUBAH NAMA KOLOM

MEMBUAT TBLPELANGGAM

```
mysql> CREATE TABLE tblpelanggan
    -> (
    -> idpelanggan INT,
    -> nama VARCHAR(200),
    -> alamat VARCHAR(255)
    -> );
Query OK, 0 rows affected (0.01 sec)
```

MENAMBAHKAN PRIMARY KEY

```
mysql> ALTER TABLE tblpelanggan MODIFY idpelanggan INT NOT NULL AUTO_INCREMENT P
RIMARY KEY;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

MENAMPILKAN ENGINE YANG DIGUNAKAN

```
mysql> SHOW CREATE TABLE tblpelanggan;
ERROR 1046 (3D000): No database selected
mysql> USE dbtoko;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> SHOW CREATE TABLE tblpelanggan;
+---------------+---------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
----------------------+
| Table         | Create Table


                       |
+---------------+---------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
----------------------+
| tblpelanggan | CREATE TABLE `tblpelanggan` (
  `idpelanggan` int NOT NULL AUTO_INCREMENT,
  `nama` varchar(200) DEFAULT NULL,
  `alamat` varchar(255) DEFAULT NULL,
  PRIMARY KEY (`idpelanggan`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci |
+---------------+---------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
----------------------+
1 row in set (0.00 sec)
```

MEMBUAT TABEL TBLORDER

```
mysql> CREATE TABLE tblorder
    -> (
    -> idorder INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
    -> idpelanggan INT,
    -> tanggalorder DATE,
    -> total FLOAT,
    -> bayar FLOAT,
    -> kembali FLOAT
    -> );
```
```
mysql> ALTER TABLE tblorder ADD faktor VARCHAR(50) AFTER idpelanggan;
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> describe tblorder;
+--------------+-------------+------+-----+---------+----------------+
| Field        | Type        | Null | Key | Default | Extra          |
+--------------+-------------+------+-----+---------+----------------+
| idorder      | int         | NO   | PRI | NULL    | auto_increment |
| idpelanggan  | int         | YES  |     | NULL    |                |
| faktor       | varchar(50) | YES  |     | NULL    |                |
| tanggalorder | date        | YES  |     | NULL    |                |
| total        | float       | YES  |     | NULL    |                |
| bayar        | float       | YES  |     | NULL    |                |
| kembali      | float       | YES  |     | NULL    |                |
+--------------+-------------+------+-----+---------+----------------+
7 rows in set (0.00 sec)
```

MENAMBAH KOLOM SETELAH KOLOM
MEMBUAT TBLORDERDETAIL

```
mysql> CREATE TABLE tblorderdetail ( idorderdetail INT NOT NULL AUTO_INCREMENT P
RIMARY KEY, idorder INT, idbarang INT, jumlah INT, hargajual FLOAT );
Query OK, 0 rows affected (0.01 sec)
```

MEMBUAT INDEX

```
mysql> CREATE INDEX pelangganindex ON tblpelanggan (nama);
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

MENAMPILKAN INDEX

```
mysql> SHOW INDEX FROM tblbarang;
+-----------+------------+------------+--------------+-------------+-----------
+------------+----------+--------+------+------------+---------+--------------
+---------+------------+
| Table     | Non_unique | Key_name   | Seq_in_index | Column_name | Collation
| Cardinality | Sub_part | Packed | Null | Index_type | Comment | Index_comment
| Visible | Expression |
+-----------+------------+------------+--------------+-------------+-----------
+------------+----------+--------+------+------------+---------+--------------
+---------+------------+
| tblbarang |          0 | PRIMARY    |            1 | idbarang    | A
|          0 |     NULL |   NULL |      | BTREE      |         |
| YES     | NULL       |
| tblbarang |          1 | barangindex |           1 | barang      | A
|          0 |     NULL |   NULL | YES  | BTREE      |         |
| YES     | NULL       |
+-----------+------------+------------+--------------+-------------+-----------
+------------+----------+--------+------+------------+---------+--------------
+---------+------------+
2 rows in set (0.00 sec)
```

MENGHAPUS INDEX

```
mysql> DROP INDEX pelangganindex ON tblpelanggan;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

INSERT SEMUA KOLOM

```
mysql> INSERT INTO tblkelompok VALUES (NULL, 'Gula');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> SELECT*FROM tblkelompok;
+------------+----------+
| idkelompok | kelompok |
+------------+----------+
|          1 | Gula     |
+------------+----------+
1 row in set (0.00 sec)
```

INSERT SEBAGIAN KOLOM

```
mysql> INSERT INTO tblkelompok (kelompok) VALUES('Beras');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO tblkelompok (kelompok) VALUES('Tepung');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO tblkelompok (kelompok) VALUES('Minyak');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO tblkelompok (kelompok) VALUES('Jajan');
Query OK, 1 row affected (0.01 sec)
```

DELETE SEBAGIAN RECORD (BARIS DATA)

```
mysql> DELETE FROM tblkelompok WHERE idkelompok=5;
Query OK, 1 row affected (0.00 sec)
```

DELETE SEMUA RECORD

```
mysql> DELETE FROM tblkelompok;
Query OK, 3 rows affected (0.00 sec)
```

UPDATE SEBAGIAN RECORD

```
mysql> UPDATE tblkelompok SET kelompok='Snack' WHERE idkelompok=6;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

UPDATE SEMUA RECORD

```
mysql> UPDATE tblkelompok SET kelompok='Makanan';
Query OK, 3 rows affected (0.01 sec)
Rows matched: 3  Changed: 3  Warnings: 0
```

MEMBUAT RELASI ANTAR TABEL

```
mysql> ALTER TABLE tblbarang ADD CONSTRAINT FK_idkelompok FOREIGN KEY (idkelompok) REFERENCES
tblkelompok (idkelompok) ON UPDATE CASCADE ON DELETE RESTRICT;
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

```
 tblbarang | CREATE TABLE `tblbarang` (
 `idbarang` int NOT NULL AUTO_INCREMENT,
 `idkelompok` int DEFAULT NULL,
 `barang` varchar(200) DEFAULT NULL,
 `stokbarang` int DEFAULT NULL,
 `hargabeli` float DEFAULT NULL,
 `hargajual` float DEFAULT NULL,
 PRIMARY KEY (`idbarang`),
 KEY `barangindex` (`barang`),
 KEY `FK_idkelompok` (`idkelompok`),
 CONSTRAINT `FK_idkelompok` FOREIGN KEY (`idkelompok`) REFERENCES `tblkelompok` (`idkelompok`
) ON DELETE RESTRICT ON UPDATE CASCADE
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci |
```

MENGUJI HASIL RELASI

```
mysql>  INSERT INTO tblbarang VALUES (NULL,6,"Beras Rojo Lele",100,10000,12000);
Query OK, 1 row affected (0.01 sec)

mysql>
```

```
mysql> SELECT * FROM tblbarang;
+----------+------------+------------------+------------+-----------+-----------+
| idbarang | idkelompok | barang           | stokbarang | hargabeli | hargajual |
+----------+------------+------------------+------------+-----------+-----------+
|        4 |          6 | Beras Rojo Lele  |        100 |     10000 |     12000 |
|        5 |          1 | Beras Rojo Lele  |        100 |     10000 |     12000 |
|        6 |          1 | Beras Rojolele   |         50 |     12000 |     14000 |
|        7 |          1 | Beras Pandan Wangi |       30 |     13000 |     15000 |
|        8 |          3 | Minyak Kita      |         20 |     20000 |     23000 |
|        9 |          3 | Minyak Bimoli    |         10 |     23000 |     26000 |
|       10 |          2 | Gula Pasir       |         15 |     12000 |     14000 |
|       11 |          2 | Gula Merah       |         10 |      9000 |     11000 |
|       12 |          2 | Gula Batu        |          8 |     15000 |     17000 |
|       13 |          4 | Tepung Terigu    |         15 |     12000 |     14000 |
|       14 |          4 | Tepung Roti      |         10 |     15000 |     18000 |
|       15 |          4 | Tepung Kanji     |         15 |     10000 |     12000 |
+----------+------------+------------------+------------+-----------+-----------+
```

PENGUJIAN INSERT DAN UPDATE

```
mysql> INSERT INTO tblbarang VALUES (0,'9','Tepung Sagu',20,4000,6000);
Query OK, 1 row affected (0.01 sec)

mysql> UPDATE tblkelompok SET kelompok='Tepung Sagu' WHERE kelompok='Tepung';
Query OK, 3 rows affected (0.00 sec)
Rows matched: 3  Changed: 3  Warnings: 0
```

PENGUJIAN DELETE

```
mysql>  DELETE FROM tblkelompok WHERE idkelompok=10;
Query OK, 1 row affected (0.00 sec)
```

PEMBUATAN VIEW

```
mysql> CREATE VIEW view_barang AS SELECT
    -> tblbarang.idbarang, tblbarang.barang,
    -> tblbarang.stokbarang, tblbarang.hargabeli,
    -> tblbarang.hargajual, tblbarang.idkelompok,
    -> tblkelompok.kelompok FROM tblbarang
    -> INNER JOIN tblkelompok ON tblbarang.idkelompok = tblkelompok.idkelompok;
Query OK, 0 rows affected (0.00 sec)
```

MENAMPILKAN VIEW

```
mysql> SHOW FULL TABLES IN dbtoko WHERE TABLE_TYPE = 'VIEW';
+-----------------+------------+
| Tables_in_dbtoko | Table_type |
+-----------------+------------+
| view_barang     | VIEW       |
+-----------------+------------+
1 row in set (0.00 sec)
```

MELIHAT ISI VIEW

```
mysql> SELECT*FROM view_barang;
+----------+-------------------+------------+-----------+-----------+------------+-
---+
| idbarang | barang            | stokbarang | hargabeli | hargajual | idkelompok |
   |
+----------+-------------------+------------+-----------+-----------+------------+-
---+
|        4 | Beras Rojo Lele   |        100 |     10000 |     12000 |          6 |
   |
|        5 | Beras Rojo Lele   |        100 |     10000 |     12000 |          1 |
   |
|        6 | Beras Rojolele    |         50 |     12000 |     14000 |          1 |
   |
|        7 | Beras Pandan Wangi |        30 |     13000 |     15000 |          1 |
   |
|        8 | Minyak Kita       |         20 |     20000 |     23000 |          3 |
   |
|        9 | Minyak Bimoli     |         10 |     23000 |     26000 |          3 |
   |
|       10 | Gula Pasir        |         15 |     12000 |     14000 |          2 |
   |
|       11 | Gula Merah        |         10 |      9000 |     11000 |          2 |
   |
|       12 | Gula Batu         |          8 |     15000 |     17000 |          2 |
   |
```

MENGHAPUS VIEW

```
mysql> DROP VIEW view_barang;
Query OK, 0 rows affected (0.01 sec)
```

SELECT SEMUA KOLOM

```
mysql> SELECT*FROM view_barang;
+-----------+--------------------+------------+-----------+-----------+------------+
| idbarang | barang             | stokbarang | hargabeli | hargajual | idkelompok |
+-----------+--------------------+------------+-----------+-----------+------------+
|        4 | Beras Rojo Lele    |        100 |     10000 |     12000 |          6 |
|        5 | Beras Rojo Lele    |        100 |     10000 |     12000 |          1 |
|        6 | Beras Rojolele     |         50 |     12000 |     14000 |          1 |
|        7 | Beras Pandan Wangi |         30 |     13000 |     15000 |          1 |
|        8 | Minyak Kita        |         20 |     20000 |     23000 |          3 |
|        9 | Minyak Bimoli      |         10 |     23000 |     26000 |          3 |
|       10 | Gula Pasir         |         15 |     12000 |     14000 |          2 |
|       11 | Gula Merah         |         10 |      9000 |     11000 |          2 |
|       12 | Gula Batu          |          8 |     15000 |     17000 |          2 |
```

SELECT SEBAGIAN KOLOM

```
mysql> SELECT stokbarang, kelompok FROM view_barang;
+------------+-------------+
| stokbarang | kelompok    |
+------------+-------------+
|        100 | Sembako     |
|        100 | Beras       |
|         50 | Beras       |
|         30 | Beras       |
|         20 | Minyak      |
|         10 | Minyak      |
|         15 | Gula        |
|         10 | Gula        |
|          8 | Gula        |
|         15 | Tepung Sagu |
|         10 | Tepung Sagu |
|         15 | Tepung Sagu |
|         20 | Beras       |
+------------+-------------+
13 rows in set (0.00 sec)
```

SELECT ORDER

```
mysql> SELECT * FROM view_barang ORDER BY hargabeli ASC;
+-----------+--------------------+------------+-----------+-----------+------------+-
---+
| idbarang | barang             | stokbarang | hargabeli | hargajual | idkelompok |
    |
+-----------+--------------------+------------+-----------+-----------+------------+-
---+
|       16 | Tepung Sagu        |        20 |     4000 |     6000 |         9 |
    |
|       11 | Gula Merah         |        10 |     9000 |    11000 |         2 |
    |
|        4 | Beras Rojo Lele    |       100 |    10000 |    12000 |         6 |
    |
|        5 | Beras Rojo Lele    |       100 |    10000 |    12000 |         1 |
    |
|       15 | Tepung Kanji       |        15 |    10000 |    12000 |         4 |
gu |
|        6 | Beras Rojolele     |        50 |    12000 |    14000 |         1 |
```

SELECT GROUP

```
mysql> SELECT barang, MAX(stokbarang) as stokbarang
    -> FROM view_barang
    -> GROUP BY barang;
+--------------------+------------+
| barang             | stokbarang |
+--------------------+------------+
| Beras Rojo Lele    |        100 |
| Beras Rojolele     |         50 |
| Beras Pandan Wangi |         30 |
| Minyak Kita        |         20 |
| Minyak Bimoli      |         10 |
| Gula Pasir         |         15 |
| Gula Merah         |         10 |
| Gula Batu          |          8 |
| Tepung Terigu      |         15 |
| Tepung Roti        |         10 |
| Tepung Kanji       |         15 |
| Tepung Sagu        |         20 |
+--------------------+------------+
12 rows in set (0.01 sec)
```

PENGUJIAN WHERE

```
mysql> SELECT * FROM tblbarang WHERE hargajual > 5000 ORDER BY hargajual;
+----------+------------+------------------+------------+-----------+-----------+
| idbarang | idkelompok | barang           | stokbarang | hargabeli | hargajual |
+----------+------------+------------------+------------+-----------+-----------+
|       16 |          9 | Tepung Sagu      |         20 |      4000 |      6000 |
|       11 |          2 | Gula Merah       |         10 |      9000 |     11000 |
|        4 |          6 | Beras Rojo Lele  |        100 |     10000 |     12000 |
|        5 |          1 | Beras Rojo Lele  |        100 |     10000 |     12000 |
|       15 |          4 | Tepung Kanji     |         15 |     10000 |     12000 |
|        6 |          1 | Beras Rojolele   |         50 |     12000 |     14000 |
|       10 |          2 | Gula Pasir       |         15 |     12000 |     14000 |
|       13 |          4 | Tepung Terigu    |         15 |     12000 |     14000 |
|        7 |          1 | Beras Pandan Wangi |       30 |     13000 |     15000 |
|       12 |          2 | Gula Batu        |          8 |     15000 |     17000 |
|       14 |          4 | Tepung Roti      |         10 |     15000 |     18000 |
|        8 |          3 | Minyak Kita      |         20 |     20000 |     23000 |
|        9 |          3 | Minyak Bimoli    |         10 |     23000 |     26000 |
+----------+------------+------------------+------------+-----------+-----------+
13 rows in set (0.00 sec)
```

SUBQUERY (SELECT IN SELECT)

```
mysql> INSERT INTO tblkelompok (kelompok) VALUES ('Minyak');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO tblkelompok (kelompok) VALUES ('Jajan');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO tblkelompok (kelompok) VALUES ('Roti Basah');
Query OK, 1 row affected (0.00 sec)
```

PRIKSA VIEW BARANG

```
mysql> SELECT*FROM tblkelompok
    -> WHERE idkelompok NOT IN
    -> (SELECT idkelompok FROM view_barang);
+------------+-------------+
| idkelompok | kelompok    |
+------------+-------------+
|         11 | Tepung Sagu |
|         12 | Beras       |
|         13 | Gula        |
|         14 | Tepung Sagu |
|         15 | Minyak      |
|         16 | Jajan       |
|         17 | Roti Basah  |
+------------+-------------+
7 rows in set (0.00 sec)
```

MEMBUAT RELASI ANTAR TABEL

```
mysql> ALTER TABLE tblorder ADD CONSTRAINT FK_idpelanggan FOREIGN KEY (idpelanggan) REFERENCE
S tblpelanggan (idpelanggan) ON UPDATE CASCADE ON DELETE RESTRICT;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> SHOW CREATE TABLE tblorder;
```

RELASI 2 TABEL MASTER DAN 1 TABEL TRANSAKSI

```
mysql> ALTER TABLE tblorderdetail
    -> ADD CONSTRAINT FK_idorder FOREIGN KEY (idorder)
    -> REFERENCES tblorder (idorder)
    -> ON UPDATE CASCADE ON DELETE RESTRICT;
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> ALTER TABLE tblorderdetail
    -> ADD CONSTRAINT FK_idbarang FOREIGN KEY (idbarang)
    -> REFERENCES tblbarang (idbarang)
    -> ON UPDATE CASCADE ON DELETE RESTRICT;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

DUMMY DATA

```
mysql> INSERT INTO tblpelanggan VALUES(NULL,'KOSONG','KOSONG');
Query OK, 1 row affected (0.00 sec)
```

KONSEP TRIGGER

```
mysql> ALTER TABLE tblorderdetail CHANGE hargajual hargapenjualan FLOAT;
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> ALTER TABLE tblbarang ALTER COLUMN stokbarang SET DEFAULT 0;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> ALTER TABLE tblorder ALTER COLUMN total SET DEFAULT 0;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

PEMBUATAN TRIGGER

```
mysql> CREATE TRIGGER kurang_stok
    -> BEFORE INSERT ON tblorderdetail
    -> FOR EACH ROW
    -> UPDATE tblbarang SET stokbarang=stokbarang - NEW.jumlah
    -> WHERE idbarang = NEW.idbarang;
Query OK, 0 rows affected (0.01 sec)

mysql> CREATE TRIGGER tambah_total
    -> AFTER INSERT ON tblorderdetail
    -> FOR EACH ROW
    -> UPDATE tblorder SET
    -> total = total + (NEW.hargapenjualan * NEW.jumlah)
    -> WHERE idorder = NEW.idorder;
Query OK, 0 rows affected (0.00 sec)

mysql> CREATE TRIGGER tambah_stok
    -> BEFORE DELETE ON tblorderdetail
    -> FOR EACH ROW
    -> UPDATE tblbarang SET stokbarang = stokbarang + OLD.jumlah
    -> WHERE idbarang = OLD.idbarang;
Query OK, 0 rows affected (0.00 sec)

mysql> CREATE TRIGGER kurang_total
    -> AFTER DELETE ON tblorderdetail
    -> FOR EACH ROW
    -> UPDATE tblorder SET
    -> total = total - (OLD.hargapenjualan * OLD.jumlah)
    -> WHERE idorder = OLD.idorder;
Query OK, 0 rows affected (0.01 sec)
```

MENAMPILKAN TRIGGER

```
mysql> SHOW TRIGGERS;
```

PENGUJIAN TRIGGER

```
mysql> INSERT INTO tblpelanggan VALUES (NULL,'komputerkit','sidoarjo');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO tblpelanggan VALUES (NULL,'Isa','lamongan');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO tblorder
    -> (idpelanggan, faktor, tanggalorder)
    -> VALUES (2, '001', NOW() );
Query OK, 1 row affected, 1 warning (0.01 sec)


mysql> INSERT INTO tblorderdetail
    -> (idorder, idbarang, jumlah, hargapenjualan)
    -> VALUES (1, 17, 35, 12000);
Query OK, 1 row affected (0.01 sec)
```

PENGUJIAN DELETE PADA TABEL

```
mysql> DELETE FROM tblorderdetail
    -> WHERE idorderdetail = 17;
Query OK, 0 rows affected (0.00 sec)
```

HAPUS TRIGGER

```
mysql> DROP TRIGGER kurang_total;
Query OK, 0 rows affected (0.03 sec)
```

JOIN (GABUNGAN TABEL)

```
mysql> CREATE TRIGGER kurang_total
    -> AFTER DELETE ON tblorderdetail
    -> FOR EACH ROW
    -> UPDATE tblorder SET
    -> total = total - (OLD.hargapenjualan * OLD.jumlah)
    -> WHERE idorder = OLD.idorder;
Query OK, 0 rows affected (0.00 sec)

mysql> INSERT INTO tblorderdetail
    -> (idorder, idbarang, jumlah, hargapenjualan)
    -> VALUES (1, 6, 5, 5000);
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> INSERT INTO tblorderdetail
    -> (idorder, idbarang, jumlah, hargapenjualan)
    -> VALUES (1, 12, 5, 5000);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO tblorder
    -> (idpelanggan, faktor, tanggalorder)
    -> VALUES (1, '002', NOW());
Query OK, 1 row affected, 1 warning (0.01 sec)
```

```
mysql> INSERT INTO tblorderdetail
    -> (idorder, idbarang, jumlah, hargapenjualan)
    -> VALUES (2, 10, 5, 0000 );
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO tblorderdetail
    -> (idorder, idbarang, jumlah, hargapenjualan)
    -> VALUES (2, 4, 5, 30000 );
Query OK, 1 row affected (0.01 sec)
```

INNER JOIN (MENGAMBIL BAGIAN YANG ADA DI TABEL MASTER DAN TABEL TRANSAKSI)

```
mysql> SELECT
    ->     tblbarang.barang,
    ->     tblorderdetail.jumlah,
    ->     tblorderdetail.hargapenjualan
    -> FROM tblbarang
    -> INNER JOIN tblorderdetail
    -> ON tblbarang.idbarang = tblorderdetail.idbarang;

mysql> SELECT tblpelanggan.nama,
    -> tblorder.tanggalorder, tblorder.total
    -> FROM tblpelanggan
    -> INNER JOIN tblorder
    -> ON tblpelanggan.idpelanggan = tblorder.idpelanggan;
+-------------+--------------+--------+
| nama        | tanggalorder | total  |
+-------------+--------------+--------+
| komputerkit | 2025-11-03   | 470000 |
| KOSONG      | 2025-11-03   | 150000 |
+-------------+--------------+--------+
2 rows in set (0.00 sec)
```

INNER JOIN TABEL

```
mysql> SELECT tblorder.tanggalorder, tblpelanggan.nama,
    -> tblbarang.barang,tblorderdetail.jumlah,
    -> tblorderdetail.hargapenjualan, tblorder.total
    -> FROM tblpelanggan
    -> INNER JOIN tblorder
    -> ON tblpelanggan.idpelanggan = tblorder.idpelanggan
    -> INNER JOIN tblorderdetail
    -> ON tblorder.idorder = tblorderdetail.idorder
    -> INNER JOIN tblbarang
    -> ON tblorderdetail.idbarang = tblbarang.idbarang
    -> ORDER BY tblpelanggan.nama;
```

LEFT & RIGHT JOIN

```
mysql> SELECT tblbarang.barang,
    -> tblorderdetail.jumlah, tblorderdetail.hargapenjualan
    -> FROM tblbarang
    -> LEFT JOIN tblorderdetail
    -> ON tblbarang.idbarang = tblorderdetail.idbarang
    -> ORDER BY tblorderdetail.jumlah DESC;
```

```
mysql> SELECT
    ->      tblbarang.barang,
    ->      tblorderdetail.jumlah,
    ->      tblorderdetail.hargapenjualan
    -> FROM tblbarang
    -> RIGHT JOIN tblorderdetail
    ->     ON tblbarang.idbarang = tblorderdetail.idbarang
    -> ORDER BY tblorderdetail.jumlah DESC;
+-----------------+---------+----------------+
| barang          | jumlah  | hargapenjualan |
+-----------------+---------+----------------+
| Beras Rojo Lele |     35  |          12000 |
| Beras Rojolele  |      5  |           5000 |
| Gula Batu       |      5  |           5000 |
| Gula Pasir      |      5  |              0 |
| Beras Rojo Lele |      5  |          30000 |
+-----------------+---------+----------------+
5 rows in set (0.01 sec)
```

STORE PROCEDURE

```
mysql> CREATE PROCEDURE namapelanggan()
    -> SELECT * FROM tblpelanggan;
Query OK, 0 rows affected (0.08 sec)

mysql> CALL namapelanggan();
+-------------+-------------+----------+
| idpelanggan | nama        | alamat   |
+-------------+-------------+----------+
|           1 | KOSONG      | KOSONG   |
|           2 | komputerkit | sidoarjo |
|           3 | Isa         | lamongan |
+-------------+-------------+----------+
3 rows in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```

```
mysql> CREATE PROCEDURE caribarang (barang VARCHAR(100))
    -> SELECT * FROM tblbarang
    -> WHERE tblbarang.barang LIKE barang;
Query OK, 0 rows affected (0.02 sec)

mysql> CALL caribarang ('%t%');
+---------+-----------+---------------+-----------+----------+----------+
| idbarang | idkelompok | barang       | stokbarang | hargabeli | hargajual |
+---------+-----------+---------------+-----------+----------+----------+
|        8 |         3 | Minyak Kita   |        20 |    20000 |    23000 |
|       12 |         2 | Gula Batu     |         3 |    15000 |    17000 |
|       13 |         4 | Tepung Terigu |        15 |    12000 |    14000 |
|       14 |         4 | Tepung Roti   |        10 |    15000 |    18000 |
|       15 |         4 | Tepung Kanji  |        15 |    10000 |    12000 |
|       16 |         9 | Tepung Sagu   |        20 |     4000 |     6000 |
+---------+-----------+---------------+-----------+----------+----------+
6 rows in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```

MENAMPILKAN SEMUA PROCEDURE

```
mysql> SHOW PROCEDURE STARUS;
```

MENGHAPUS PROCEDURE

```
mysql> DROP PROCEDURE caribarang;
Query OK, 0 rows affected (0.01 sec)
```

FUNCTION

```
mysql> SELECT hargajual - hargabeli AS laba
    -> FROM tblbarang WHERE idbarang = 1;
Empty set (0.00 sec)
mysql> CREATE FUNCTION laba (id INT) RETURNS FLOAT
    -> DETERMINISTIC READS SQL DATA
    -> RETURN (
    ->     SELECT hargajual - hargabeli
    ->     FROM tblbarang
    ->     WHERE idbarang = id
    -> );
Query OK, 0 rows affected (0.01 sec)
```

MEMANGGAIL FUNCTION

```
mysql> SELECT laba(1);
+---------+
| laba(1) |
+---------+
|    NULL |
+---------+
1 row in set (0.03 sec)
```

PENGGUNAAN FUNCTION

```
mysql> ALTER TABLE tblorderdetail ADD laba FLOAT;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0
mysql> INSERT INTO tblorder
    -> (idpelanggan, faktor, tanggalorder)
    -> VALUES (3,'003', NOW() );
Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> INSERT INTO tblorderdetail
    -> (idorder, idbarang, jumlah, hargapenjualan, laba
    -> VALUES (3, 8, 5, 9000, (SELECT(8)));
Query OK, 1 row affected (0.00 sec)
```

MENAMPILKAN DAN MENGHAPUS FUNCTION

```
mysql> SHOW FUNCTION STATUS;

mysql> DROP FUNCTION laba;
Query OK, 0 rows affected (0.01 sec)

mysql>
```

SELECT AGGREGATE

```
mysql> SELECT MIN(hargajual) FROM tblbarang;
+----------------+
| MIN(hargajual) |
+----------------+
|           6000 |
+----------------+
1 row in set (0.00 sec)

mysql> SELECT MAX(hargajual) FROM tblbarang;
+----------------+
| MAX(hargajual) |
+----------------+
|          26000 |
+----------------+
1 row in set (0.00 sec)

mysql> SELECT SUM(hargajual) FROM tblbarang;
+----------------+
| SUM(hargajual) |
+----------------+
|         206000 |
+----------------+
1 row in set (0.00 sec)

mysql> SELECT AVG(hargajual) FROM tblbarang;
+--------------------+
| AVG(hargajual)     |
+--------------------+
| 14714.285714285714 |
+--------------------+
1 row in set (0.01 sec)

mysql> SELECT COUNT(hargajual) FROM tblbarang;
+------------------+
| COUNT(hargajual) |
+------------------+
|               14 |
+------------------+
```

SELECT BETWEEN

```
mysql> SELECT * FROM tblbarang
    -> WHERE hargajual BETWEEN 5000 AND 15000;
+----------+------------+--------------------+------------+-----------+-----------+
| idbarang | idkelompok | barang             | stokbarang | hargabeli | hargajual |
+----------+------------+--------------------+------------+-----------+-----------+
|        4 |          6 | Beras Rojo Lele    |         95 |     10000 |     12000 |
|        5 |          1 | Beras Rojo Lele    |        100 |     10000 |     12000 |
|        6 |          1 | Beras Rojolele     |         45 |     12000 |     14000 |
|        7 |          1 | Beras Pandan Wangi |         30 |     13000 |     15000 |
|       10 |          2 | Gula Pasir         |         10 |     12000 |     14000 |
|       11 |          2 | Gula Merah         |         10 |      9000 |     11000 |
|       13 |          4 | Tepung Terigu      |         15 |     12000 |     14000 |
|       15 |          4 | Tepung Kanji       |         15 |     10000 |     12000 |
|       16 |          9 | Tepung Sagu        |         20 |      4000 |      6000 |
|       17 |          1 | Beras Rojo Lele    |         65 |     10000 |     12000 |
+----------+------------+--------------------+------------+-----------+-----------+
10 rows in set (0.00 sec)

mysql> []
```

SELECT DISTINCT

```
mysql> SELECT DISTINCT kelompok FROM view_barang;
+-------------+
| kelompok    |
+-------------+
| Beras       |
| Gula        |
| Minyak      |
| Tepung Sagu |
| Sembako     |
+-------------+
5 rows in set (0.01 sec)

mysql> []
```

START TRANSACTION,COUNT, DAN ROLLBACK

```
mysql> START TRANSACTION;
Query OK, 0 rows affected (0.01 sec)

mysql> INSERT INTO tblkelompok VALUES (NULL,'Minuman');
Query OK, 1 row affected (0.00 sec)

mysql> ROLLBACK;
Query OK, 0 rows affected (0.00 sec)


mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql> COMMIT;
Query OK, 0 rows affected (0.00 sec)

mysql> ROLLBACK;
Query OK, 0 rows affected (0.00 sec)

mysql> []
```

MENAMPILKAN SEMUA USER

```
mysql> SELECT user, host, password FROM mysql.user;
```

MENAMBAH USER

```
mysql> CREATE USER 'Ahmad'@'localhost';
Query OK, 0 rows affected (0.02 sec)
```

MEMBERIKAN PASS PADA USER

```
mysql> ALTER USER 'Ahmad'@'localhost' IDENTIFIED BY '';
Query OK, 0 rows affected (0.01 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql> []
```

MENGUJI USER DAN PASS

```
mysql> quit
Bye
dayy@dayy-HP-Laptop-14s-dq3xxx:~$ mysql -u Ahmad -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 8.0.43-0ubuntu0.24.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
```

MEMBERIKAN HAK AKSES

```
mysql> GRANT ALL PRIVILEGES ON dbtoko.* TO 'Ahmad'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)

mysql> []
```

MENAMPILKAN USER YANG SEDANG LOGIN

```
mysql> SELECT USER(),CURRENT_USER();
+----------------+----------------+
| USER()         | CURRENT_USER() |
+----------------+----------------+
| Ahmad@localhost | Ahmad@localhost |
+----------------+----------------+
1 row in set (0.00 sec)
```

MENAMPILKAN HAK AKSES YANG DIBERIKAN

```
mysql> SHOW GRANTS FOR 'Ahmad'@'localhost';
+----------------------------------------------------------+
| Grants for Ahmad@localhost                               |
+----------------------------------------------------------+
| GRANT USAGE ON *.* TO `Ahmad`@`localhost`                |
| GRANT ALL PRIVILEGES ON `dbtoko`.* TO `Ahmad`@`localhost` |
+----------------------------------------------------------+
2 rows in set (0.00 sec)
```

MENGHAPUS HAK AKSES

```
mysql> REVOKE ALL PRIVILEGES, GRANT OPTION FROM 'Ahmad'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)

mysql> []
```

MEMBERIKAN HAK AKSES KEPADA DATABASE DENGAN TABEL

```
mysql> GRANT ALL PRIVILEGES ON dbtoko.tblkelompok TO 'Ahmad'@'localhost';
Query OK, 0 rows affected (0.01 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql> []
```

MEMBERIKAN HAK AKSES PADA SELECT,INSERT,DELETE,UPDATE, PADA TABEL

```
mysql> GRANT SELECT, INSERT ON
    -> dbtoko.tblpelanggan TO 'Ahmad'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql> []




mysql> INSERT INTO tblpelanggan VALUES(NULL,'joni', 'Sidoarjo');
Query OK, 1 row affected (0.01 sec)
mysql> DELETE FROM tblpelanggan
    -> WHERE idpelanggan = 4;
Query OK, 1 row affected (0.01 sec)

mysql> UPDATE tblpelanggan
    -> SET nama='Tejo' WHERE idpelanggan=4;
Query OK, 0 rows affected (0.01 sec)
Rows matched: 0  Changed: 0  Warnings: 0
```

UBAH PASS USER

```
mysql> ALTER USER 'root'@'localhost' IDENTIFIED BY 'pass';
Query OK, 0 rows affected (0.01 sec)


mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)
```

HAPUS USER

```
mysql> DROP USER 'Ahmad'@'localhost';
Query OK, 0 rows affected (0.03 sec)
```

UBAH PASS USER(ROOT)

```
dayy@dayy-HP-Laptop-14s-dq3xxx:~$ mysqladmin -u root password 123456
```

```
dayy@dayy-HP-Laptop-14s-dq3xxx:~$ mysqladmin -u root -p123456 password
mysqladmin: [Warning] Using a password on the command line interface can be insecure.
New password:
Confirm new password:
Warning: Since password will be sent to server in plain text, use ssl connection to ensure
password safety.
dayy@dayy-HP-Laptop-14s-dq3xxx:~$ []
```