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Database   : db_penjualan_buku

Praktikum:

1. Setup

2. Membuat database baru CREATE DATABASE nama_database;

Menampilkan daftar database yang ada mengggunakan SHOW DATABASES;

3. Memilih database menggunakan USE nama_database;

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

4. Membuat beberapa table baru menggunakan CREATE TABLE nama_table (atribut);

```
MariaDB [(none)]> use db_penjualan_buku;
Database changed
MariaDB [db_penjualan_buku]> CREATE TABLE users (
    -> id INT AUTO_INCREMENT PRIMARY KEY,
    -> name VARCHAR(255) NOT NULL,
    -> email VARCHAR(255) NOT NULL UNIQUE,
    -> password VARCHAR(255) NOT NULL,
    -> role ENUM('customer','admin') NOT NULL
    -> );
Query OK, 0 rows affected (0.021 sec)
```

```
MariaDB [db_penjualan_buku]> CREATE TABLE authors (
    -> id INT AUTO_INCREMENT PRIMARY KEY,
    -> name VARCHAR(255) NOT NULL,
    -> photo VARCHAR(255) NOT NULL,
    -> bio TEXT NOT NULL
    -> );
Query OK, 0 rows affected (0.029 sec)

MariaDB [db_penjualan_buku]> CREATE TABLE genres (
    -> id INT AUTO_INCREMENT PRIMARY KEY,
    -> name VARCHAR(255) NOT NULL,
    -> description TEXT NOT NULL
    -> );
Query OK, 0 rows affected (0.028 sec)

MariaDB [db_penjualan_buku]> CREATE TABLE books (
    -> id INT AUTO_INCREMENT PRIMARY KEY,
    -> tittle VARCHAR(255) NOT NULL,
    -> description TEXT NOT NULL,
    -> price DECIMAL(10,2) NOT NULL,
    -> stock INT NOT NULL,
    -> cover_photo VARCHAR(255) NOT NULL,
    -> genre_id INT NOT NULL,
    -> author_id INT NOT NULL,
    -> FOREIGN KEY (genre_id) REFERENCES genres(id),
    -> FOREIGN KEY (author_id) REFERENCES authors(id)
    -> );
Query OK, 0 rows affected (0.040 sec)

MariaDB [db_penjualan_buku]> CREATE TABLE transactions (
    -> id INT AUTO_INCREMENT PRIMARY KEY,
    -> order_number VARCHAR(255) NOT NULL UNIQUE,
    -> customer_id INT NOT NULL,
    -> books_id INT NOT NULL,
    -> total_amount DECIMAL(10,2) NOT NULL,
    -> FOREIGN KEY (customer_id) REFERENCES genres(id),
    -> FOREIGN KEY (book_id) REFERENCES books(id)
    -> );
```
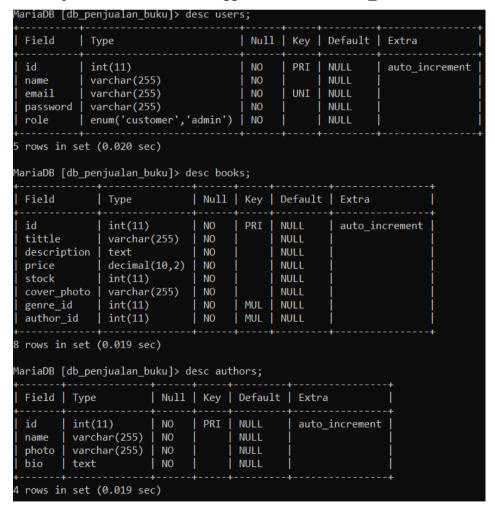
Pada table books dan transactions terdapat FOREIGN KEY (atribut dari table utama) REFERENCES nama_table yang ingin dihubungkan(atribut); untuk menghubungkan 1 table dengan table yang lain.
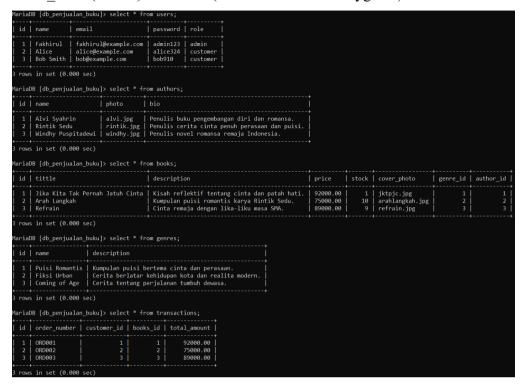
5. Menampilkan table yang telah dibuat menggunakan SHOW TABLES;

```
MariaDB [db_penjualan_buku]> show tables;
+---------------------------+
| Tables_in_db_penjualan_buku |
+---------------------------+
| authors                   |
| books                     |
| genres                    |
| transactions              |
| users                     |
+---------------------------+
5 rows in set (0.001 sec)
```

6. Menampilkan struktur table menggunakan DESC nama_table;

```
MariaDB [db_penjualan_buku]> desc users;
+----------+------------------------+------+-----+---------+----------------+
| Field    | Type                   | Null | Key | Default | Extra          |
+----------+------------------------+------+-----+---------+----------------+
| id       | int(11)                | NO   | PRI | NULL    | auto_increment |
| name     | varchar(255)           | NO   |     | NULL    |                |
| email    | varchar(255)           | NO   | UNI | NULL    |                |
| password | varchar(255)           | NO   |     | NULL    |                |
| role     | enum('customer','admin') | NO |     | NULL    |                |
+----------+------------------------+------+-----+---------+----------------+
5 rows in set (0.020 sec)

MariaDB [db_penjualan_buku]> desc books;
+-------------+---------------+------+-----+---------+----------------+
| Field       | Type          | Null | Key | Default | Extra          |
+-------------+---------------+------+-----+---------+----------------+
| id          | int(11)       | NO   | PRI | NULL    | auto_increment |
| tittle      | varchar(255)  | NO   |     | NULL    |                |
| description | text          | NO   |     | NULL    |                |
| price       | decimal(10,2) | NO   |     | NULL    |                |
| stock       | int(11)       | NO   |     | NULL    |                |
| cover_photo | varchar(255)  | NO   |     | NULL    |                |
| genre_id    | int(11)       | NO   | MUL | NULL    |                |
| author_id   | int(11)       | NO   | MUL | NULL    |                |
+-------------+---------------+------+-----+---------+----------------+
8 rows in set (0.019 sec)

MariaDB [db_penjualan_buku]> desc authors;
+-------+--------------+------+-----+---------+----------------+
| Field | Type         | Null | Key | Default | Extra          |
+-------+--------------+------+-----+---------+----------------+
| id    | int(11)      | NO   | PRI | NULL    | auto_increment |
| name  | varchar(255) | NO   |     | NULL    |                |
| photo | varchar(255) | NO   |     | NULL    |                |
| bio   | text         | NO   |     | NULL    |                |
+-------+--------------+------+-----+---------+----------------+
4 rows in set (0.019 sec)
```

7. Menambahkan 3 data awal di beberapa table menggunakan INSERT INTO nama_table (atribut) VALUES (isi data sesuai atribut yg ada).

```
MariaDB [db_penjualan_buku]> select * from users;
+----+-----------+---------------------+----------+----------+
| id | name      | email               | password | role     |
+----+-----------+---------------------+----------+----------+
|  1 | Fakhirul  | fakhirul@example.com | admin123 | admin    |
|  2 | Alice     | alice@example.com   | alice324 | customer |
|  3 | Bob Smith | bob@example.com     | bob910   | customer |
+----+-----------+---------------------+----------+----------+
3 rows in set (0.000 sec)

MariaDB [db_penjualan_buku]> select * from authors;
+----+-------------------+------------+----------------------------------------------+
| id | name              | photo      | bio                                          |
+----+-------------------+------------+----------------------------------------------+
|  1 | Alvi Syahrin      | alvi.jpg   | Penulis buku pengembangan diri dan romansa.  |
|  2 | Rintik Sedu       | rintik.jpg | Penulis cerita cinta penuh perasaan dan puisi. |
|  3 | Windhy Puspitadewi | windhy.jpg | Penulis novel romansa remaja Indonesia.      |
+----+-------------------+------------+----------------------------------------------+
3 rows in set (0.000 sec)

MariaDB [db_penjualan_buku]> select * from books;
+----+----------------------------+------------------------------------------+---------+-------+--------------+----------+-----------+
| id | tittle                     | description                              | price   | stock | cover_photo  | genre_id | author_id |
+----+----------------------------+------------------------------------------+---------+-------+--------------+----------+-----------+
|  1 | Jika Kita Tak Pernah Jatuh Cinta | Kisah reflektif tentang cinta dan patah hati. | 92000.00 |     1 | jktpjc.jpg   |        1 |         1 |
|  2 | Arah Langkah               | Kumpulan puisi romantis karya Rintik Sedu. | 75000.00 |    10 | arahlangkah.jpg |      2 |         2 |
|  3 | Refrain                    | Cinta remaja dengan lika-liku masa SMA.  | 89000.00 |     9 | refrain.jpg  |        3 |         3 |
+----+----------------------------+------------------------------------------+---------+-------+--------------+----------+-----------+
3 rows in set (0.000 sec)

MariaDB [db_penjualan_buku]> select * from genres;
+----+----------------+------------------------------------------+
| id | name           | description                              |
+----+----------------+------------------------------------------+
|  1 | Puisi Romantis | Kumpulan puisi bertema cinta dan perasaan. |
|  2 | Fiksi Urban    | Cerita berlatar kehidupan kota dan realita modern. |
|  3 | Coming of Age  | Cerita tentang perjalanan tumbuh dewasa. |
+----+----------------+------------------------------------------+
3 rows in set (0.000 sec)

MariaDB [db_penjualan_buku]> select * from transactions;
+----+--------------+-------------+----------+--------------+
| id | order_number | customer_id | books_id | total_amount |
+----+--------------+-------------+----------+--------------+
|  1 | ORD001       |           1 |        1 |     92000.00 |
|  2 | ORD002       |           2 |        2 |     75000.00 |
|  3 | ORD003       |           3 |        3 |     89000.00 |
+----+--------------+-------------+----------+--------------+
3 rows in set (0.000 sec)
```

Tugas:

1. Menambahkan 5 data menggunakan INSERT INTO nama_table (atribut) VALUES (isi data sesuai atribut yg ada).

```
MariaDB [db_penjualan_buku]> INSERT INTO users (name, email, password, role) VALUES
    -> ('Jake Enhypen', 'jake@admin.com', 'enha24', 'customer'),
    -> ('Jay Enhypen', 'jay@admin.com', 'enha23', 'customer'),
    -> ('tenZ', 'tenz@sen.com', 'senE1', 'customer'),
    -> ('f0rsaken', 'f0rsaken@prx.com', 'prxE1', 'customer'),
    -> ('famouz', 'famouz@boom.com', 'boomE1', 'customer');
Query OK, 5 rows affected (0.015 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [db_penjualan_buku]> select * from users;
+----+--------------+----------------------+----------+----------+
| id | name         | email                | password | role     |
+----+--------------+----------------------+----------+----------+
|  1 | Fakhirul     | fakhirul@example.com | admin123 | admin    |
|  2 | Alice        | alice@example.com    | alice324 | customer |
|  3 | Bob Smith    | bob@example.com      | bob910   | customer |
|  4 | Jake Enhypen | jake@admin.com       | enha24   | customer |
|  5 | Jay Enhypen  | jay@admin.com        | enha23   | customer |
|  6 | tenZ         | tenz@sen.com         | senE1    | customer |
|  7 | f0rsaken     | f0rsaken@prx.com     | prxE1    | customer |
|  8 | famouz       | famouz@boom.com      | boomE1   | customer |
+----+--------------+----------------------+----------+----------+
8 rows in set (0.000 sec)
```

```
MariaDB [db_penjualan_buku]> INSERT INTO authors (name, photo, bio) VALUES
    -> ('Tere Liye', 'tereliye.jpg', 'Penulis terkenal Indonesia dengan banyak novel populer.'),
    -> ('Ika Natassa', 'ika.jpg', 'Penulis novel romance dan kehidupan urban.'),
    -> ('Dee Lestari', 'dee.jpg', 'Penulis novel spiritual dan romansa.'),
    -> ('Boy Candra', 'boycandra.jpg', 'Penulis puisi dan novel romantis.'),
    -> ('Anya Saraswati', 'anya.jpg', 'Penulis muda dengan gaya romantis yang segar.');
Query OK, 5 rows affected (0.006 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [db_penjualan_buku]> INSERT INTO genres (name, description) VALUES
    -> ('Romansa', 'Genre yang berfokus pada hubungan romantis.'),
    -> ('Drama', 'Genre yang menekankan emosi dan konflik.'),
    -> ('Spiritual', 'Novel dengan nilai-nilai kehidupan dan religius.'),
    -> ('Fiksi Remaja', 'Fiksi yang cocok untuk kalangan muda.'),
    -> ('Motivasi', 'Buku yang memberikan inspirasi hidup.');
Query OK, 5 rows affected (0.016 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

```
MariaDB [db_penjualan_buku]> INSERT INTO books (tittle, description, price, stock, cover_photo, genre_id, author_id) VALUES
    -> ('Hujan', 'Novel tentang cinta dan kehilangan karya Tere Liye.', 95000, 10, 'hujan.jpg', 4, 4),
    -> ('Critical Eleven', 'Cinta dan karier dalam dunia modern karya Ika Natassa.', 120000, 5, 'criticaleleven.jpg', 4, 5),
    -> ('Perahu Kertas', 'Cerita cinta remaja karya Dee Lestari.', 100000, 7, 'perahukertas.jpg', 7, 6),
    -> ('Senja dan Pagi', 'Kisah cinta masa SMA karya Boy Candra.', 80000, 12, 'senjadanpagi.jpg', 4, 8),
    -> ('Cinta Dalam Diam', 'Romansa islami dengan makna dalam karya Anya Saraswati.', 85000, 8, 'cintadalamdiam.jpg', 7, 8);
Query OK, 5 rows affected (0.016 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

```
MariaDB [db_penjualan_buku]> INSERT INTO transactions (order_number, customer_id, books_id, total_amount) VALUES
    -> ('ORD004', 4, 4, 95000),
    -> ('ORD005', 5, 5, 120000),
    -> ('ORD006', 6, 6, 100000),
    -> ('ORD007', 7, 7, 80000),
    -> ('ORD008', 8, 8, 85000);
Query OK, 5 rows affected (0.016 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

2. Ubah data:

- Mengupdate customer_id pada table transactions berdasarkan customer_id 1.

```
MariaDB [db_penjualan_buku]> UPDATE transactions SET customer_id = 8 WHERE customer_id = 1;
Query OK, 1 row affected (0.015 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

Data awal:

```
MariaDB [db_penjualan_buku]> select * from transactions;
+----+--------------+-------------+----------+--------------+
| id | order_number | customer_id | books_id | total_amount |
+----+--------------+-------------+----------+--------------+
|  1 | ORD001       |           1 |        1 |     92000.00 |
|  2 | ORD002       |           2 |        2 |     75000.00 |
|  3 | ORD003       |           3 |        3 |     89000.00 |
|  4 | ORD004       |           4 |        4 |     95000.00 |
|  5 | ORD005       |           5 |        5 |    120000.00 |
|  6 | ORD006       |           6 |        6 |    100000.00 |
|  7 | ORD007       |           7 |        7 |     80000.00 |
|  8 | ORD008       |           8 |        8 |     85000.00 |
+----+--------------+-------------+----------+--------------+
8 rows in set (0.000 sec)
```

Hasil setelah diubah:

```
MariaDB [db_penjualan_buku]> select * from transactions;
+----+--------------+-------------+----------+--------------+
| id | order_number | customer_id | books_id | total_amount |
+----+--------------+-------------+----------+--------------+
|  1 | ORD001       |           8 |        1 |     92000.00 |
|  2 | ORD002       |           2 |        2 |     75000.00 |
|  3 | ORD003       |           3 |        3 |     89000.00 |
|  4 | ORD004       |           4 |        4 |     95000.00 |
|  5 | ORD005       |           5 |        5 |    120000.00 |
|  6 | ORD006       |           6 |        6 |    100000.00 |
|  7 | ORD007       |           7 |        7 |     80000.00 |
|  8 | ORD008       |           8 |        8 |     85000.00 |
+----+--------------+-------------+----------+--------------+
8 rows in set (0.000 sec)
```

- Mengubah kolom "tittle" pada table books menjadi "title".

```
MariaDB [db_penjualan_buku]> ALTER TABLE books CHANGE tittle title VARCHAR(255) NOT NULL;
Query OK, 0 rows affected (0.018 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [db_penjualan_buku]> desc books;
+-------------+---------------+------+-----+---------+----------------+
| Field       | Type          | Null | Key | Default | Extra          |
+-------------+---------------+------+-----+---------+----------------+
| id          | int(11)       | NO   | PRI | NULL    | auto_increment |
| title       | varchar(255)  | NO   |     | NULL    |                |
| description | text          | NO   |     | NULL    |                |
| price       | decimal(10,2) | NO   |     | NULL    |                |
| stock       | int(11)       | NO   |     | NULL    |                |
| cover_photo | varchar(255)  | NO   |     | NULL    |                |
| genre_id    | int(11)       | NO   | MUL | NULL    |                |
| author_id   | int(11)       | NO   | MUL | NULL    |                |
+-------------+---------------+------+-----+---------+----------------+
```

- Mengupdate role pada table users berdasarkan id 2.

```
MariaDB [db_penjualan_buku]> UPDATE users SET role = 'admin' WHERE id = 2;
Query OK, 1 row affected (0.015 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

Data awal:

```
MariaDB [db_penjualan_buku]> SELECT * FROM users WHERE id = 2;
+----+-------+-------------------+----------+----------+
| id | name  | email             | password | role     |
+----+-------+-------------------+----------+----------+
|  2 | Alice | alice@example.com | alice324 | customer |
+----+-------+-------------------+----------+----------+
1 row in set (0.000 sec)
```

Hasil seteleh diubah:

```
MariaDB [db_penjualan_buku]> SELECT * FROM users WHERE id = 2;
+----+-------+-------------------+----------+-------+
| id | name  | email             | password | role  |
+----+-------+-------------------+----------+-------+
|  2 | Alice | alice@example.com | alice324 | admin |
+----+-------+-------------------+----------+-------+
1 row in set (0.000 sec)
```

3. Hapus data:

   - Menambahkan 1 data yang nantinya akan dihapus.

```
MariaDB [db_penjualan_buku]> INSERT INTO users (name, email, password, role) VALUES
    -> ('Monyet', 'rrqmonyet@monyet.com', 'rrqE1', 'customer');
Query OK, 1 row affected (0.016 sec)

MariaDB [db_penjualan_buku]> select * from users;
+----+--------------+----------------------+----------+----------+
| id | name         | email                | password | role     |
+----+--------------+----------------------+----------+----------+
|  1 | Fakhirul     | fakhirul@example.com | admin123 | admin    |
|  2 | Alice        | alice@example.com    | alice324 | admin    |
|  3 | Bob Smith    | bob@example.com      | bob910   | customer |
|  4 | Jake Enhypen | jake@admin.com       | enha24   | customer |
|  5 | Jay Enhypen  | jay@admin.com        | enha23   | customer |
|  6 | tenZ         | tenz@sen.com         | senE1    | customer |
|  7 | f0rsaken     | f0rsaken@prx.com     | prxE1    | customer |
|  8 | famouz       | famouz@boom.com      | boomE1   | customer |
|  9 | Monyet       | rrqmonyet@monyet.com | rrqE1    | customer |
+----+--------------+----------------------+----------+----------+
9 rows in set (0.000 sec)
```

   - Menghapus 1 data baru yaitu id 9.

```
MariaDB [db_penjualan_buku]> DELETE FROM users WHERE id = 9;
Query OK, 1 row affected (0.015 sec)

MariaDB [db_penjualan_buku]> select * from users;
+----+--------------+----------------------+----------+----------+
| id | name         | email                | password | role     |
+----+--------------+----------------------+----------+----------+
|  1 | Fakhirul     | fakhirul@example.com | admin123 | admin    |
|  2 | Alice        | alice@example.com    | alice324 | admin    |
|  3 | Bob Smith    | bob@example.com      | bob910   | customer |
|  4 | Jake Enhypen | jake@admin.com       | enha24   | customer |
|  5 | Jay Enhypen  | jay@admin.com        | enha23   | customer |
|  6 | tenZ         | tenz@sen.com         | senE1    | customer |
|  7 | f0rsaken     | f0rsaken@prx.com     | prxE1    | customer |
|  8 | famouz       | famouz@boom.com      | boomE1   | customer |
+----+--------------+----------------------+----------+----------+
8 rows in set (0.000 sec)
```