

BASIS DATA PRAKTIKUM



PERTEMUAN 9

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A. TEST AWAL

- 1) Apakah yang anda ketahui tentang Data Control Language?
- 2) Berilah satu contoh DCL !

B. TEST AKHIR

- 1) Buatlah sebuah user baru dengan nama anda
- 2) Berikan/Cabut hak akses terhadap user baru tersebut dengan grant insert pada table vendors.
- 3) Cek hasil pemberian hak akses dengan melakukan login dan insert/update/delete data table vendors menggunakan user tersebut
- 4) Cabut hak akses tersebut dengan revoke.
- 5) Buatlah laporan praktikum dengan ketentuan sebagai berikut : (pilih tipe data yang sesuai dan berikan alasan anda mengenai tipe data yang dipilih)

JAWABAN:

A. TEST AWAL

1) Data Control Language (DCL) adalah bagian dari SQL yang digunakan untuk mengontrol keamanan dan pengelolaan akses terhadap database dan tabel-tabelnya. DCL berfungsi untuk mengatur hak akses (permissions) pengguna terhadap objek dalam database, sehingga data hanya dapat diakses oleh pengguna tertentu sesuai dengan hak akses yang diberikan. Fungsi utama DCL:

- Mengatur Hak Akses (Grant): Mengizinkan pengguna untuk mengakses dan melakukan operasi tertentu pada tabel atau database.
- Mencabut Hak Akses (Revoke): Menarik kembali izin yang telah diberikan kepada pengguna.

Contoh Perintah DCL:

- Grant: Memberikan hak akses kepada pengguna.

```
GRANT SELECT, INSERT ON orderentry.customers TO kulo@localhost;
```

```
FLUSH PRIVILEGES;
```

Perintah ini memberikan hak akses SELECT dan INSERT kepada user kulo untuk tabel customers dalam database orderentry.

- Revoke: Mencabut hak akses dari pengguna.

```
REVOKE SELECT, INSERT ON orderentry.customers FROM lilnande@localhost;
```

```
FLUSH PRIVILEGES;
```

Perintah ini mencabut hak akses SELECT dan INSERT dari user lilnande.

2) Berilah satu contoh DCL !

- Memberikan Hak Akses

```
GRANT SELECT ON tb_customers TO lilnande;
```

- Mencabut Hak Akses

```
REVOKE SELECT ON tb_customers TO lilnande;
```

B. TEST AKHIR

1) Buatlah sebuah user baru dengan nama anda

-

```
MariaDB [orderentry]> use mysql;
Database changed
MariaDB [mysql]> create user 'lilnande'@'localhost' IDENTIFIED BY '221';
Query OK, 0 rows affected (0.006 sec)
```

- Password langsung terencrypt ketika cek user password

```
MariaDB [mysql]> select host,user,password from user;
+-----+-----+-----+
| Host      | User      | Password                                     |
+-----+-----+-----+
| localhost | root      |                                             |
| localhost | lilnande  | *CAC926C90985FC48783145FD428E3F0EBDCF43A5 |
| 127.0.0.1 | root      |                                             |
| ::1       | root      |                                             |
| localhost | pma       |                                             |
+-----+-----+-----+
5 rows in set (0.012 sec)
```

2) Berikan/Cabut hak akses terhadap user baru tersebut dengan grant insert pada table vendors.

- Codenya:

```
MariaDB [mysql]> GRANT SELECT, INSERT, UPDATE, DELETE ON order_entry.vendors to 'lilnande'@'localhost';
ERROR 1146 (42S02): Table 'order_entry.vendors' doesn't exist
MariaDB [mysql]> GRANT SELECT, INSERT, UPDATE, DELETE ON orderentry.vendors
to 'lilnande'@'localhost';
Query OK, 0 rows affected (0.002 sec)

MariaDB [mysql]> Bye
```

3) Cek hasil pemberian hak akses dengan melakukan login dan insert/update/delete data table vendors menggunakan user tersebut

- Login pakai user lilnande

```
Fernanda@FERNANDA c:\xampp
# mysql -u lilnande -p
Enter password: ***
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 9
Server version: 10.4.32-MariaDB mariadb.org binary distribution

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

- Insert

```
MariaDB [(none)]> use orderentry;
Database changed
MariaDB [orderentry]> desc vendors;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| vend_id | char(4) | NO | PRI | NULL | |
| vend_name | varchar(25) | NO | | NULL | |
| vend_address | varchar(30) | YES | | NULL | |
| vend_city | varchar(20) | YES | | NULL | |
| vend_state | varchar(5) | YES | | NULL | |
| vend_zip | varchar(7) | YES | | NULL | |
| vend_country | varchar(15) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.003 sec)

MariaDB [orderentry]> INSERT INTO vendors (vend_id, vend_name, vend_address,
vend_city, vend_state, vend_zip, vend_country)
-> VALUES ('1234', 'FERNANDA', 'PANONGAN', 'TANGERANG', 'TNG', '15710',
'INDONESIA');
Query OK, 1 row affected (0.003 sec)

MariaDB [orderentry]> SELECT * FROM vendors WHERE vend_id = '1234';
+-----+-----+-----+-----+-----+-----+-----+
| vend_id | vend_name | vend_address | vend_city | vend_state | vend_zip | vend_country |
+-----+-----+-----+-----+-----+-----+-----+
| 1234 | FERNANDA | PANONGAN | TANGERANG | TNG | 15710 | INDONESIA |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.001 sec)
```

- Update

```
MariaDB [orderentry]> UPDATE vendors
-> SET vend_name = 'Fernandaz', vend_city = 'JAKARTA'
-> WHERE vend_id = '1234';
Query OK, 1 row affected (0.003 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [orderentry]> SELECT * FROM vendors WHERE vend_id = '1234';
+-----+-----+-----+-----+-----+-----+-----+
| vend_id | vend_name | vend_address | vend_city | vend_state | vend_zip | vend_country |
+-----+-----+-----+-----+-----+-----+-----+
| 1234 | Fernandaz | PANONGAN | JAKARTA | TNG | 15710 | INDONESIA |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.000 sec)
```

- Delete

```
MariaDB [orderentry]> DELETE FROM venndors WHERE vend_id = '1234';  
ERROR 1142 (42000): DELETE command denied to user 'lilnande'@'localhost' for table 'orderentry`.`venndors`  
MariaDB [orderentry]> DELETE FROM vendors WHERE vend_id = '1234';  
Query OK, 1 row affected (0.002 sec)
```

4) Cabut hak akses tersebut dengan revoke

```
Fernanda@FERNANDA c:\xampp  
# mysql -u root -p  
Enter password:  
Welcome to the MariaDB monitor.  Commands end with ; or \g.  
Your MariaDB connection id is 10  
Server version: 10.4.32-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)]> REVOKE ALL PRIVILEGES ON *.* FROM 'lilnande'@'localhost';  
Query OK, 0 rows affected (0.001 sec)  
  
MariaDB [(none)]> |
```