

## MySQL - GRANT & REVOKE

### ■ 데이터제어어 [ DCL : Data Control Language ]

데이터를 보호하고 관리하기 위한 목적으로 사용되며  
무결성, 보안 및 권한제어, 복구 등을 하기 위한 언어이다.

### ■ GRANT & REVOKE

#### 1) GRANT

- 데이터베이스 사용자에게 **권한을 부여함**

#### [형식]

##### 1) 권한부여

```
GRANT [권한] ON [DB].[TABLE] TO [유저_ID]@[호스트]
```

##### 2) 사용자등록 및 권한부여

```
GRANT [권한] ON [DB].[TABLE] TO [유저_ID]@[호스트] IDENTIFIED BY '비밀번호'
```

##### 3) 권한확인

```
SHOW GRANTS FOR [유저_ID]@[호스트]
```

#### 2) REVOKE

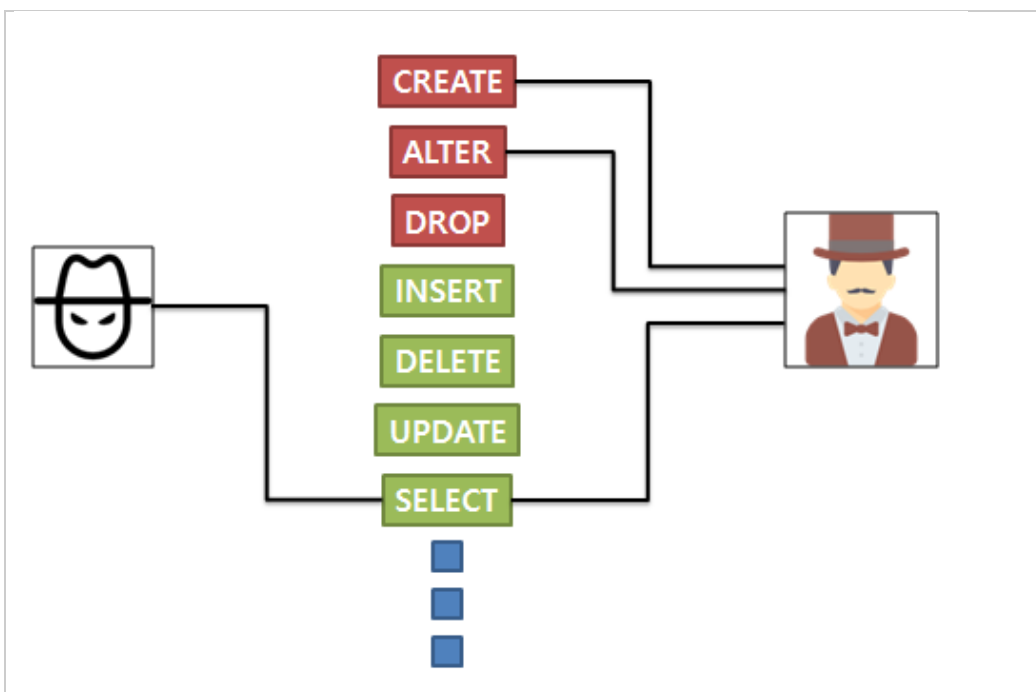
- 데이터베이스 사용자에게 **권한을 취소함**

#### [형식]

```
REVOKE [권한] ON [DB].[TABLE] FROM [유저_ID]@[호스트]
```

#### [작업요약]

# 사용자마다 권한을 부여할 수 있다.



## ■ 실습

### 1) 사용자 계정을 추가하는 실습.

많은 방법이 존재하지만, **CREATE / GRANT** 명령을 사용하여 실습한다.

```
mysql> select user, host, password from user;
```

user	host	password
root	localhost	*A4B6157319038724E3560894F7F932C8886EBFCF
root	127.0.0.1	*A4B6157319038724E3560894F7F932C8886EBFCF
root	:::1	*A4B6157319038724E3560894F7F932C8886EBFCF

3 rows in set (0.00 sec)

```
mysql> create user minki@'192.168.10.200' identified by '1234';
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> grant all privileges on *.* to hyewon@'%' identified by '1234';
```

Query OK, 0 rows affected (0.02 sec)

```
mysql> select user, host, password from user;
```

user	host	password
root	localhost	*A4B6157319038724E3560894F7F932C8886EBFCF
root	127.0.0.1	*A4B6157319038724E3560894F7F932C8886EBFCF
root	:::1	*A4B6157319038724E3560894F7F932C8886EBFCF
hyewon	%	*A4B6157319038724E3560894F7F932C8886EBFCF
minki	192.168.10.200	*A4B6157319038724E3560894F7F932C8886EBFCF

5 rows in set (0.00 sec)

### 2) 사용자를 삭제하는 실습. 많은 방법 중 DROP 명령을 통해 실습하였다.

```
mysql> select user, host, password from user;
```

user	host	password
root	localhost	*A4B6157319038724E3560894F7F932C8886EBFCF
root	127.0.0.1	*A4B6157319038724E3560894F7F932C8886EBFCF
root	:::1	*A4B6157319038724E3560894F7F932C8886EBFCF
hyewon	%	*A4B6157319038724E3560894F7F932C8886EBFCF
minki	192.168.10.200	*A4B6157319038724E3560894F7F932C8886EBFCF

5 rows in set (0.00 sec)

```
mysql> drop user minki@'192.168.10.200';
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> drop user hyewon@'%';
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> select user, host, password from user;
```

user	host	password
root	localhost	*A4B6157319038724E3560894F7F932C8886EBFCF
root	127.0.0.1	*A4B6157319038724E3560894F7F932C8886EBFCF
root	:::1	*A4B6157319038724E3560894F7F932C8886EBFCF

3 rows in set (0.00 sec)

### 3) GRANT 실습을 위해 테스트계정을 추가하였다.

- (1) CREATE USER 를 사용하여 권한이 없는 계정
- (2) GRANT 를 사용하여 권한을 부여한 계정

```
mysql> select user, host, password from user;
+-----+-----+-----+
| user | host      | password |
+-----+-----+-----+
| root | localhost | *A4B6157319038724E3560894F7F932C8886EBFCF |
| root | 127.0.0.1 | *A4B6157319038724E3560894F7F932C8886EBFCF |
| root | ::1       | *A4B6157319038724E3560894F7F932C8886EBFCF |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> create user user01@localhost identified by '1234';
Query OK, 0 rows affected (0.00 sec)

mysql> grant all privileges on *.* to test01@localhost identified by '1234';
Query OK, 0 rows affected (0.03 sec)

mysql> select user, host, password from user;
+-----+-----+-----+
| user | host      | password |
+-----+-----+-----+
| root | localhost | *A4B6157319038724E3560894F7F932C8886EBFCF |
| root | 127.0.0.1 | *A4B6157319038724E3560894F7F932C8886EBFCF |
| root | ::1       | *A4B6157319038724E3560894F7F932C8886EBFCF |
| user01 | localhost | *A4B6157319038724E3560894F7F932C8886EBFCF |
| test01 | localhost | *A4B6157319038724E3560894F7F932C8886EBFCF |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

4) 위에서 만든 계정들의 권한을 확인하기 위해 **SHOW GRANTS FOR ~** 를 통해 확인한다.

```
mysql> show grants for user01@localhost;
+-----+
| Grants for user01@localhost |
+-----+
| GRANT USAGE ON *.* TO 'user01'@'localhost' IDENTIFIED BY PASSWORD '*A4B6157319038724E3560894F7F932C8886EBFCF' |
+-----+
1 row in set (0.00 sec)

mysql> show grants for test01@localhost;
+-----+
| Grants for test01@localhost |
+-----+
| GRANT ALL PRIVILEGES ON *.* TO 'test01'@'localhost' IDENTIFIED BY PASSWORD '*A4B6157319038724E3560894F7F932C8886EBFCF' |
+-----+
1 row in set (0.00 sec)
```

5) user01 계정에 모든 권한을 주는 [ **ALL PRIVILEGES** ] 가 아닌 **선택적 권한**을 주는 실습이다.

```
mysql> grant select, insert on *.* to user01@localhost;
Query OK, 0 rows affected (0.00 sec)

mysql> show grants for user01@localhost;
+-----+
| Grants for user01@localhost |
+-----+
| GRANT SELECT, INSERT ON *.* TO 'user01'@'localhost' IDENTIFIED BY PASSWORD '*A4B6157319038724E3560894F7F932C8886EBFCF' |
+-----+
1 row in set (0.00 sec)
```

## 6) REVOKE 명령을 통해 권한을 취소하는 실습. [ ALL PRIVILEGES ] - 모든권한

```
mysql> show grants for user01@localhost;
+-----+
| Grants for user01@localhost |
+-----+
| GRANT SELECT, INSERT ON *.* TO 'user01'@'localhost' IDENTIFIED BY PASSWORD '*A4B6157319038724E3560894F7F932C8886EBFCF' |
+-----+
1 row in set (0.00 sec)

mysql> revoke all privileges on *.* from user01@localhost;
Query OK, 0 rows affected (0.00 sec)

mysql> show grants for user01@localhost;
+-----+
| Grants for user01@localhost |
+-----+
| GRANT USAGE ON *.* TO 'user01'@'localhost' IDENTIFIED BY PASSWORD '*A4B6157319038724E3560894F7F932C8886EBFCF' |
+-----+
1 row in set (0.00 sec)
```

## 7) [ ALL PRIVILEGES ] - 모든권한이 아닌 선택적인 권한을 취소하는 실습

```
mysql> show grants for user01@localhost;
+-----+
| Grants for user01@localhost |
+-----+
| GRANT SELECT, INSERT ON *.* TO 'user01'@'localhost' IDENTIFIED BY PASSWORD '*A4B6157319038724E3560894F7F932C8886EBFCF' |
+-----+
1 row in set (0.00 sec)

mysql> revoke insert on *.* from user01@localhost;
Query OK, 0 rows affected (0.00 sec)

mysql> show grants for user01@localhost;
+-----+
| Grants for user01@localhost |
+-----+
| GRANT SELECT ON *.* TO 'user01'@'localhost' IDENTIFIED BY PASSWORD '*A4B6157319038724E3560894F7F932C8886EBFCF' |
+-----+
1 row in set (0.00 sec)
```

## 8) GRANT 명령을 통해 줄 수 있는 권한을 알아보기 위해 모든 권한에서 [DELETE] 권한만을 취소한 실습

```
mysql> show grants for test01@localhost;
+-----+
| Grants for test01@localhost |
+-----+
| GRANT ALL PRIVILEGES ON *.* TO 'test01'@'localhost' IDENTIFIED BY PASSWORD '*A4B6157319038724E3560894F7F932C8886EBFCF' |
+-----+

1 row in set (0.00 sec)

mysql> revoke delete on *.* from test01@localhost;
Query OK, 0 rows affected (0.00 sec)
```

## 9) [ ALL PRIVILEGES ] 에서 [ DELETE ] 만 뺀 권한들.. 확인!

```
mysql> show grants for test01@localhost;
+-----+
| Grants for test01@localhost |
+-----+
| GRANT SELECT, INSERT, UPDATE, CREATE, DROP, RELOAD, SHUTDOWN, PROCESS, FILE, REFERENCES, INDEX, ALTER, SHOW DATABASES, SUPER, CREATE TEMPORARY TABLES, LOCK TABLES, EXECUTE, REPLICATION SLAVE, REPLICATION CLIENT, CREATE VIEW, SHOW VIEW, CREATE ROUTINE, ALTER ROUTINE, CREATE USER, EVENT, TRIGGER, CREATE TABLESPACE ON *.* TO 'test01'@'localhost' IDENTIFIED BY PASSWORD '*A4B6157319038724E3560894F7F932C8886EBFCF' |
+-----+
```