

SQL Syntax

Data Control Language
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Data Control Language

- Although not always needed for the creation, maintenance, and update of the database and tables associated with them, but the statements are implicitly required before anything else happened
- This is where you will provide for other users when you continue with database development and management

Permission Levels

- The key idea for DCL is what the user or group of users can do inside the server, database, or table
- These can be assigned to individuals, roles, as well as groups of users.

Grant

- Allows specific privileges to a user
- They can be specified one at a time, or in a list

With Grant Option

- This specific modification to the GRANT command will allow that user to confer these rights to any user created by them
- It is placed at the end of the GRANT statement
- Be careful with this in design as it can lead to misuse down the road(malicious users)
- Is ip location based

Grant Syntax

- GRANT INSERT, DELETE
ON `database`.`table`
TO 'user_x'
- GRANT ALTER
ON `database`.`table`
TO 'user_x' WITH GRANT OPTION

Revoke

- Removing permissions from a user or group
- The permissions that you wish to revoke must have been granted before you can revoke them

Restrict

- This keyword is used to limit the removal of rights with a REVOKE statement
- When RESTRICT is used the rights are only removed from the specified user and not any others created by a WITH GRANT OPTION command

Cascade

- In the context of DCL, CASCADE means continue the same set of permission modifications for all users that were created by the user having this modification
- Is only used when using the REVOKE command on a user

Grant Option For

- This is designed to limit the ability of a user to spread their rights down to other users.
- This would be helpful when you identify the actual needs of each database user after tracking their actual use of the commands and tables

Revoke Syntax

- REVOKE INSERT
ON `database`.`table`
FROM 'user'
- REVOKE ALTER
ON `database`.`table`
FROM 'username' CASCADE