



Data Control Language (DCL)

CE384: Database Design
Maryam Ramezani
Sharif University of Technology
maryam.ramezani@sharif.edu



Introduction

Data Controlling Language

- Creating a New User

- `CREATE USER your_new_username WITH PASSWORD 'your_password';`

- If you want to grant superuser privileges to the user, you can modify the command like this:

- `CREATE USER your_new_username WITH PASSWORD 'your_password' SUPERUSER;`

- Verifying User Creation:

- `SELECT * FROM pg_user WHERE username = 'your_new_username';`

DCL

Data Controlling Language

- DCL (Data Controlling Language) is a query language that allows users to retrieve and edit data held in databases. The types of Data Controlling Language commands include Grant and Revoke.

GRANT Command

- User access privileges to a database are given by this command. It can be used to grant SELECT, INSERT, UPDATE, and DELETE privileges to a user on a single table or several tables.
- Syntax: GRANT SELECT, UPDATE ON MY_TABLE TO SOME_USER, ANOTHER_USER;
 - Example: GRANT INSERT, SELECT on accounts to Alex
 - Using this command, Alex has been granted permissions on accounts database objects like he can query or insert into accounts.

REVOKE Command

- To take back permissions from the user REVOKE command is used. It is used to revoke a privilege (by default) or a specific command, such as UPDATE or DELETE, depending on the situation.
- Syntax: REVOKE privilege_name ON object_name FROM {user_name|PUBLIC |role_name}
 - Example: REVOKE INSERT, SELECT on accounts from John
 - Using this command, the permissions of John like query or insert on accounts database objects has been removed.