

how change the other roles

To change the attributes of an existing role in PostgreSQL, you can use the `ALTER ROLE` statement. This command allows you to modify various properties associated with a role, such as permissions and capabilities. Below is a detailed explanation of how to use this command along with examples.

Syntax

The basic syntax for the `ALTER ROLE` command is:

```
ALTER ROLE role_name WITH option;
```

Options for `ALTER ROLE`

You can modify several attributes of a role using the following options:

- **SUPERUSER | NOSUPERUSER**: Set the role as a superuser or revoke superuser status.
- **CREATEDB | NOCREATEDB**: Allow or disallow the role to create new databases.
- **CREATEROLE | NOCREATEROLE**: Allow or disallow the role to create new roles.
- **INHERIT | NOINHERIT**: Determine if the role inherits privileges from roles it is a member of.
- **LOGIN | NOLOGIN**: Allow or disallow the role to log in to the database.
- **REPLICATION | NOREPLICATION**: Allow or disallow replication capabilities for the role.
- **BYPASSRLS | NOBYPASSRLS**: Allow or disallow bypassing row-level security policies.
- **CONNECTION LIMIT limit**: Set a limit on the number of concurrent connections this role can make; -1 means unlimited.
- **PASSWORD 'password' | PASSWORD NULL**: Change the role's password or set it to null.
- **VALID UNTIL 'timestamp'**: Set an expiration date for the role's password.
- **rolconfig**: Modify configuration settings specific to this role.

Example Usage

1. Change a Role to Superuser

To grant superuser privileges to a role named `librarian`, you would execute:

```
ALTER ROLE librarian WITH SUPERUSER;
```

2. Revoke Superuser Privileges

To remove superuser privileges from librarian:

```
ALTER ROLE librarian WITH NOSUPERUSER;
```

3. Allow Login

To allow a role named demo_role to log in:

```
ALTER ROLE demo_role WITH LOGIN;
```

4. Set Connection Limit

To set a connection limit of 5 for the librarian role:

```
ALTER ROLE librarian WITH CONNECTION LIMIT 5;
```

5. Change Password

To change the password for demo_role:

```
ALTER ROLE demo_role WITH PASSWORD 'new_password';
```

6. Set Password Expiration

To set a password expiration date for librarian:

```
ALTER ROLE librarian VALID UNTIL '2050-12-31';
```

Permissions Required

To execute ALTER ROLE, you must have specific permissions:

- Superusers can change any attribute for any role.
- Roles with the CREATEROLE attribute can change attributes for non-superuser roles only.
- Regular roles can only change their own passwords.

Conclusion

The ALTER ROLE command is a powerful tool in PostgreSQL for managing user permissions and attributes. By using this command, you can effectively control access and capabilities within your database environment, ensuring that users have appropriate permissions based on their roles.

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