

# i mean such rolname, rolsuper, etc

Certainly! In PostgreSQL, the `pg_roles` system catalog contains various fields that provide important information about the roles defined in the database. Below, I will explain some of the key fields in `pg_roles`:

## Key Fields in `pg_roles`

### 1. `rolname`

- **Description:** This field contains the name of the role.
- **Data Type:** `name`
- **Example:** `'admin'`, `'user1'`

### 2. `rolsuper`

- **Description:** This boolean field indicates whether the role is a superuser. A superuser has unrestricted access to all database objects and can execute any command.
- **Data Type:** `boolean`
- **Values:**
  - `true`: The role is a superuser.
  - `false`: The role is not a superuser.
- **Example:**

```
SELECT rolname, rolsuper FROM pg_roles;  
-- Output might show 'admin' as true and 'user1' as false
```

### 3. `rolinherit`

- **Description:** This boolean field indicates whether the role can inherit privileges from roles it is a member of. If set to `true`, the role inherits privileges from other roles.
- **Data Type:** `boolean`
- **Values:**
  - `true`: The role inherits privileges from other roles.
  - `false`: The role does not inherit privileges.

#### 4. `rolcreatorole`

- **Description:** This boolean field indicates whether the role has permission to create new roles.
- **Data Type:** `boolean`
- **Values:**
  - `true`: The role can create other roles.
  - `false`: The role cannot create other roles.

#### 5. `rolcreatedb`

- **Description:** This boolean field indicates whether the role has permission to create new databases.
- **Data Type:** `boolean`
- **Values:**
  - `true`: The role can create databases.
  - `false`: The role cannot create databases.

#### 6. `rolcanlogin`

- **Description:** This boolean field indicates whether the role is allowed to log in to the database. Roles that are not allowed to log in are typically used for grouping permissions rather than direct user access.
- **Data Type:** `boolean`
- **Values:**
  - `true`: The role can log in.
  - `false`: The role cannot log in.

#### 7. `rolconlimit`

- **Description:** This integer field specifies the maximum number of concurrent connections that this role can make to the database. A value of -1 means no limit.
- **Data Type:** `integer`

#### 8. `rolvaliduntil`

- **Description:** This timestamp field indicates when the role's password will expire (if applicable). If this field is null, it means there is no expiration date for the password.
- **Data Type:** `timestamp with time zone`

## Example Query

To retrieve information about all roles, you can run a query like this:

```
SELECT rolname, rolsuper, rolinherit, rolcreatorole, rolcreatedb, rolcanlogin  
FROM pg_roles;
```

This query will return a list of all roles along with their respective attributes, helping you understand their permissions and capabilities within your PostgreSQL database.

## Summary

The fields in the `pg_roles` catalog provide vital information about each role's capabilities and permissions within PostgreSQL. Understanding these fields helps database administrators manage access control effectively and ensure that users have appropriate permissions based on their roles.