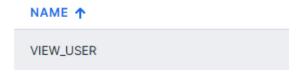
## Assignment -8

• Create Users: Create users for each role.

## 1 user has been granted ADMIN NAME ↑ SHAKSHILIKHIA 1 user has been granted ANALYST NAME ↑

## 1 user has been granted VIEWER



- Define Roles and Assign Privileges:
  - Admin: Full access to all databases and management tasks.
  - Analyst: SELECT privileges on data tables.

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• Viewer: Limited read-only access to specific schemas or dashboards.

```
GRANT ALL PRIVILEGES ON DATABASE ASSIGNMENT TO ROLE ADMIN;
GRANT ALL PRIVILEGES ON ALL SCHEMAS IN DATABASE ASSIGNMENT TO ROLE ADMIN;
GRANT ALL PRIVILEGES ON ALL TABLES IN DATABASE ASSIGNMENT TO ROLE ADMIN;
```

GRANT USAGE ON SCHEMA ASSIGNMENT.PUBLIC TO ROLE ANALYST;
GRANT SELECT ON ALL TABLES IN SCHEMA ASSIGNMENT.PUBLIC TO ROLE ANALYST;

GRANT USAGE ON SCHEMA ASSIGNMENT.public TO ROLE VIEWER;

• Apply Network Policies: Restrict access to trusted IPs.

```
CREATE NETWORK POLICY secure_nw
ALLOWED_IP_LIST = ('192.168.1.0/24', '203.0.113.0/32', '14.99.102.226')
BLOCKED_IP_LIST = ('10.0.0.0/8');

ALTER ACCOUNT SET NETWORK_POLICY= SECURE_NW;
```

• Enable MFA: Enforce MFA for all users.

```
CREATE AUTHENTICATION POLICY enforce_mfa_policy
MFA_ENROLLMENT = REQUIRED
MFA_AUTHENTICATION_METHODS = ('PASSWORD');

ALTER ACCOUNT SET AUTHENTICATION POLICY PUBLIC.enforce_mfa_policy;
```

• Data Masking: Mask sensitive columns for non-admin roles.

```
CREATE MASKING POLICY sal_mask AS (salary FLOAT) RETURNS FLOAT ->
CASE
    WHEN CURRENT_ROLE() = 'ACCOUNTADMIN' THEN salary
    ELSE 000.000
END;
ALTER TABLE EMPLOYEES MODIFY COLUMN SALARY SET MASKING POLICY sal_mask;
```

So when I switch role to ANLAYST with giving it all the grants on the employee table, the salary column shows 0 as it is masked:

