

Assignment -8

- **Create Users:** Create users for each role.

1 user has been granted ADMIN

NAME ↑

SHAKSHILIKHIA

1 user has been granted ANALYST

NAME ↑

JOHN_DOE

1 user has been granted VIEWER

NAME ↑

VIEW_USER

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

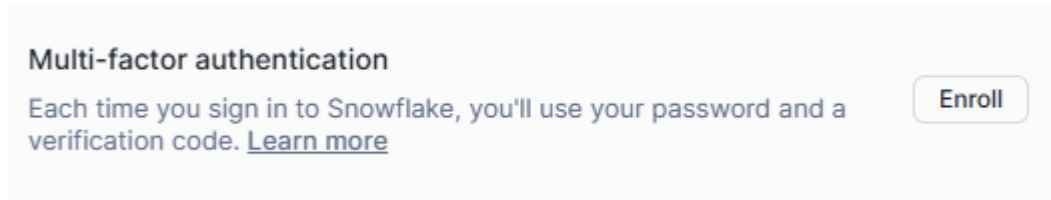
```
GRANT USAGE ON SCHEMA ASSIGNMENT.public TO ROLE VIEWER;
```

- **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.



We can simply enroll for MFA and further it will give you options on how you want to move forward with it, wither by code on your number or mail.

- **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:

#	SALARY
	0
	0