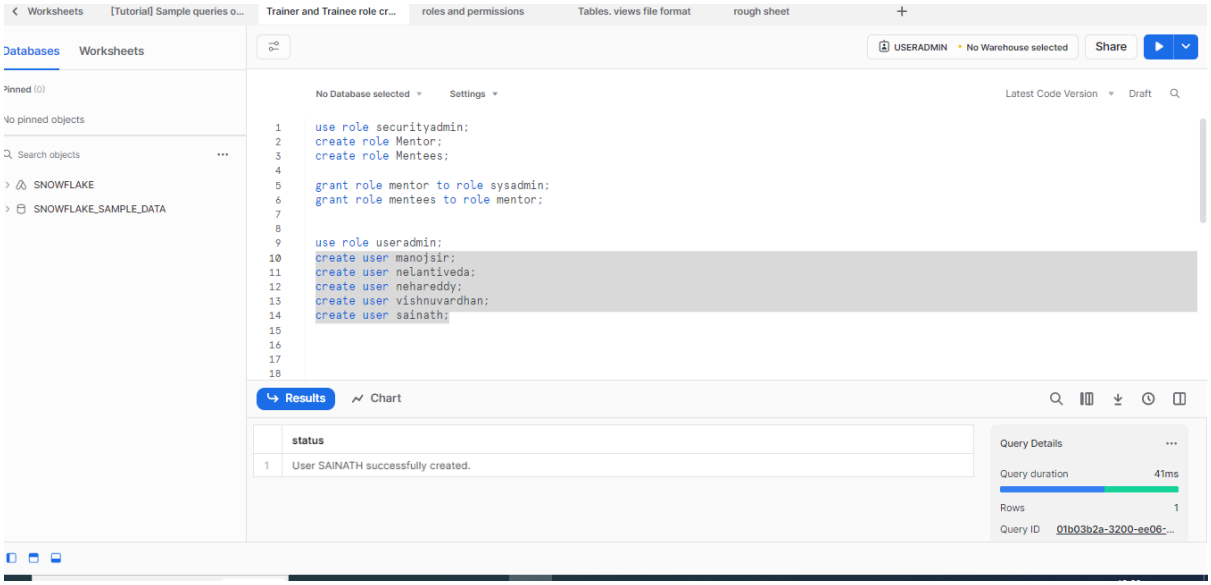
Snowflakes Roles and Permissions Assignment

1. **I have created two roles called Mentor and Mentees using security admin and created 5 users using Useradmin and assigned the roles to the sysadmin like I have assigned the mentor to the sysadmin and mentees to the mentor and the sysadmin is the parent of mentor and mentor is the parent of mentees.**

Query:-

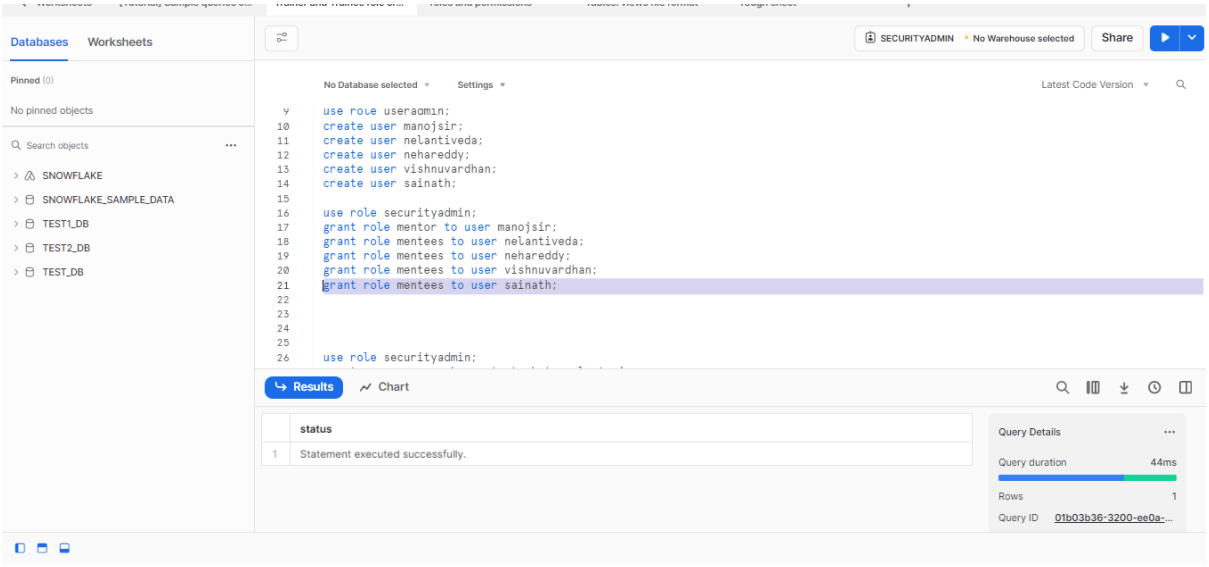
```
use role Securityadmin;

create role Mentor;

create role Mentees;

grant role mentor to role sysadmin;

grant role mentees to role mentor;

use role Useradmin;

create user manojsir;

create user nelantiveda;

create user nehareddy;

create user vishnuvardhan;

create user sainath;
```

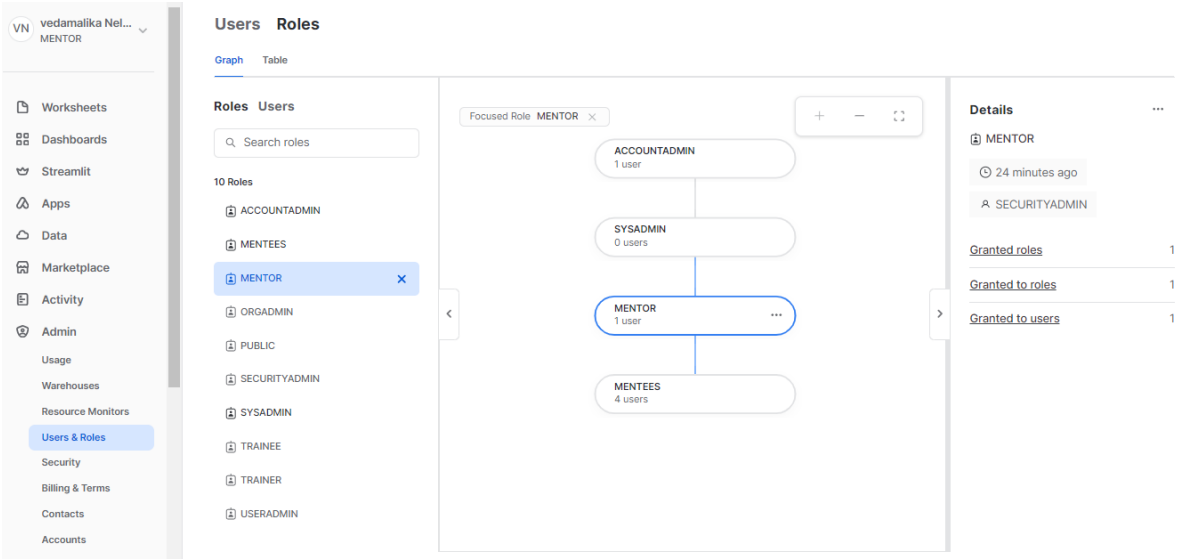


2. Now I have assigned the 5 users to the respected mentor and mentees using security admin

Query :-

```
use role securityadmin;
grant role mentor to user manojsir;
grant role mentees to user nelantiveda;
grant role mentees to user nehareddy;
grant role mentees to user vishnuvardhan;
grant role mentees to user sainath;
```

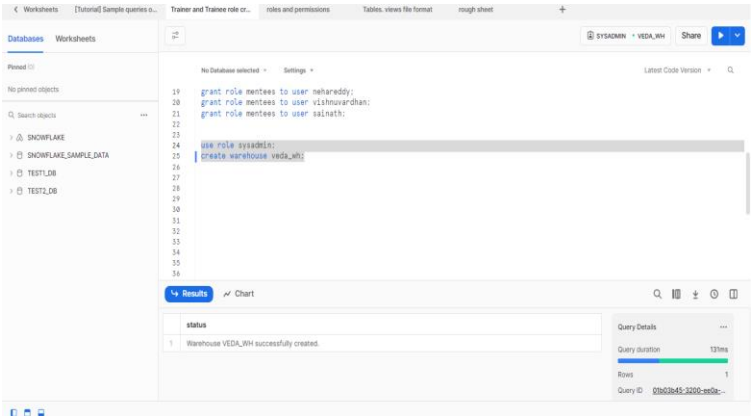


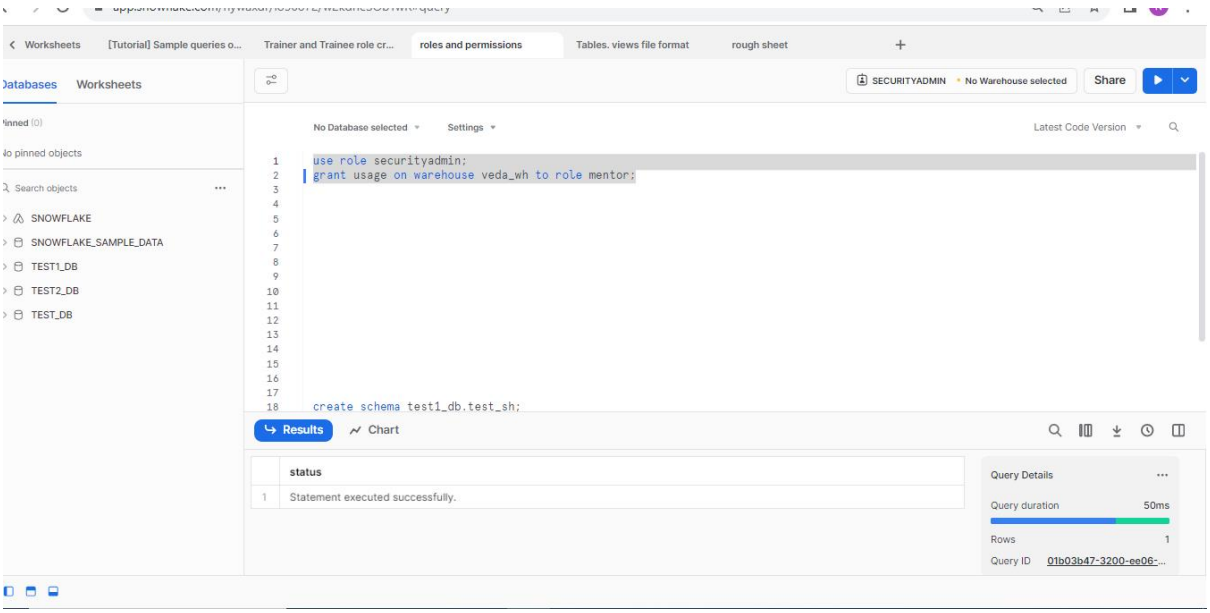


3. **Now I am creating a warehouse, as warehouse is a snowflake object so for creating snowflake objects, we mainly use sysadmin and granting the usage privilege of warehouse for mentor using security admin.**

Query :-

```
use role sysadmin;
create warehouse veda_wh;
```



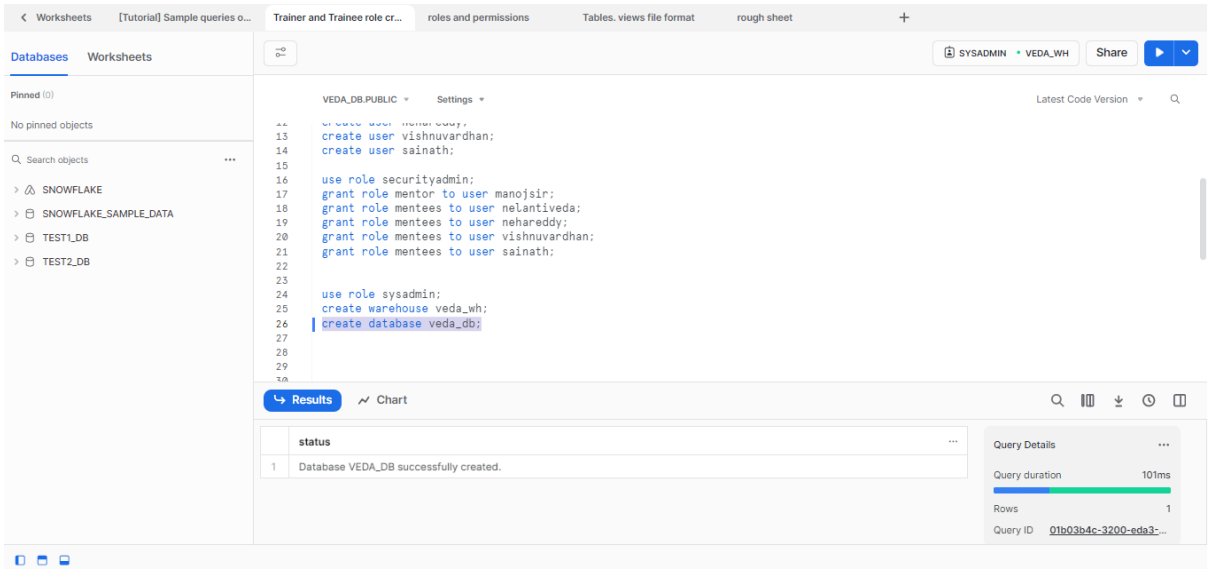


4. **Now I am creating a Database I used sysadmin and granting the usage privilege of database for mentor using security admin.**

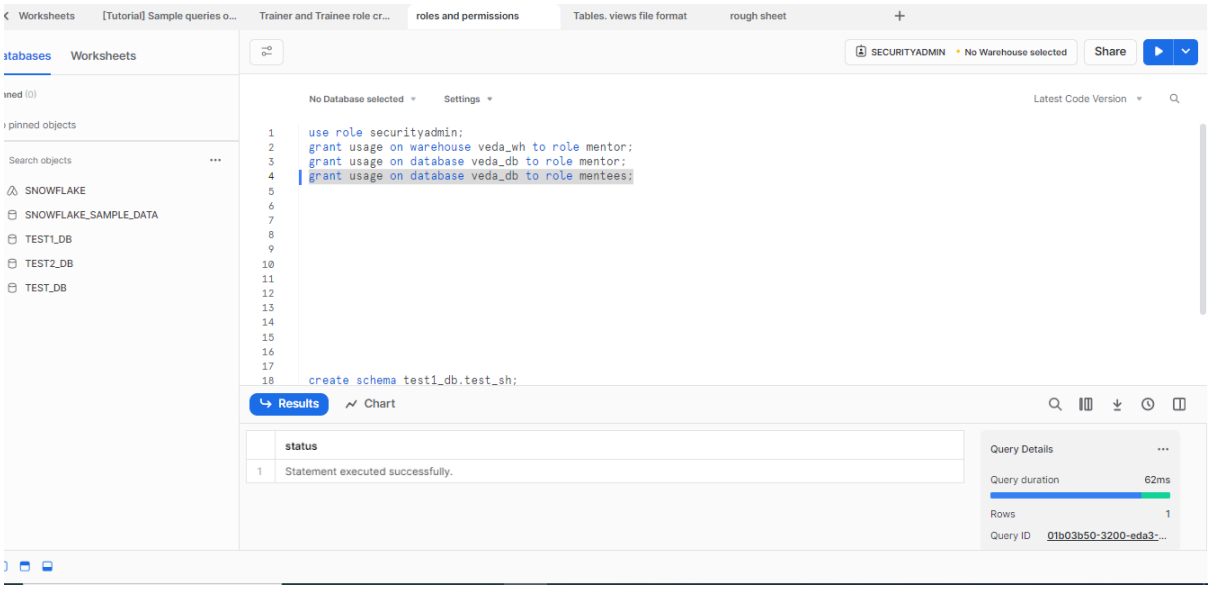
Query :-

```
use role sysadmin;
create warehouse veda_wh;
```

create database veda_db;

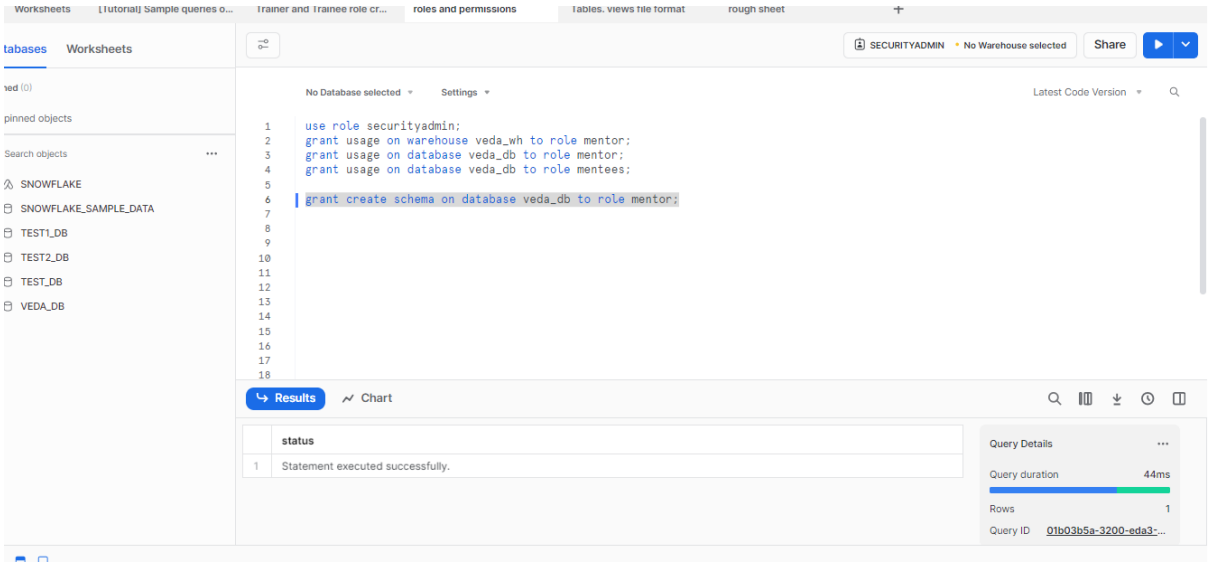


Granted the usage privilege of database to mentor and mentees



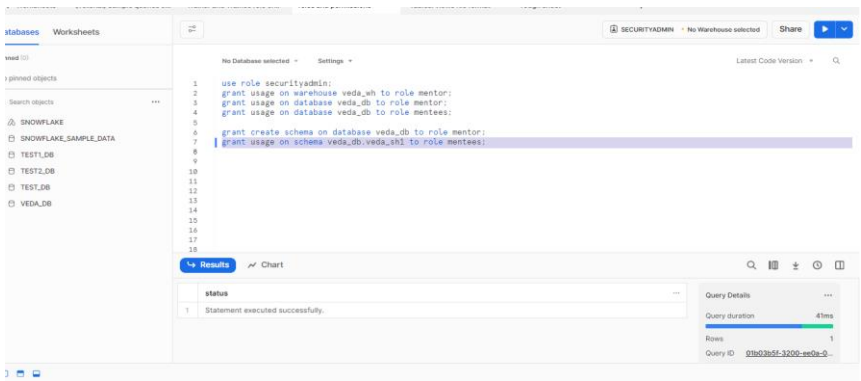
5. **Now I am creating a schema using sysadmin as sysadmin has the privilege to create schema there is no need to grant him the create schema privilege but mentor doesn't have a permission to create schema and usage of schema so now I am giving a create schema privilege to the role mentor and I am creating the schema in database veda_db.**

Query :-

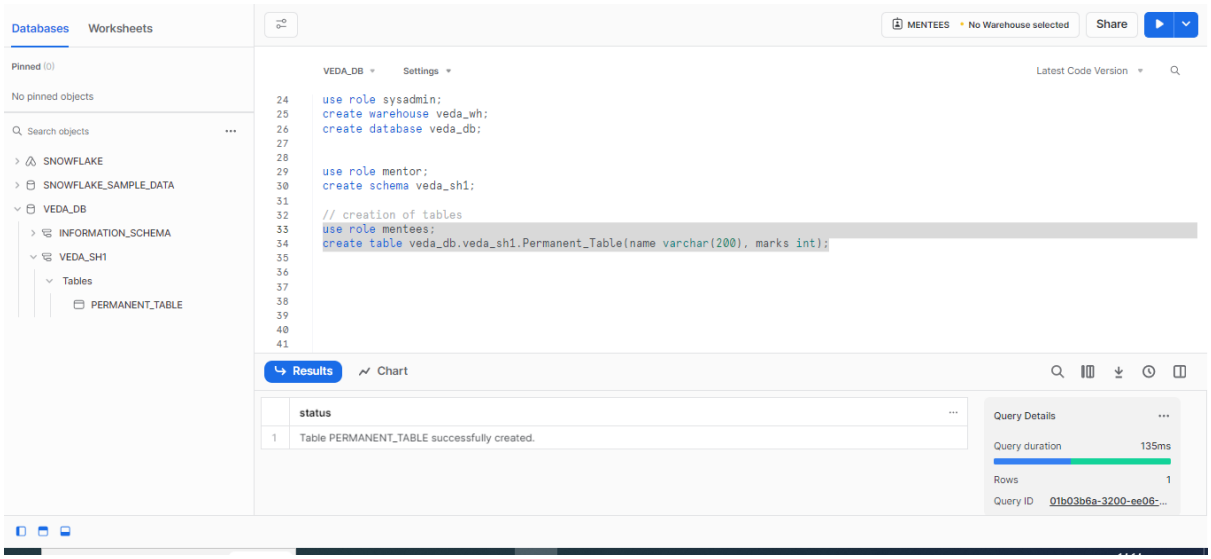


Now I have created a schema using mentor

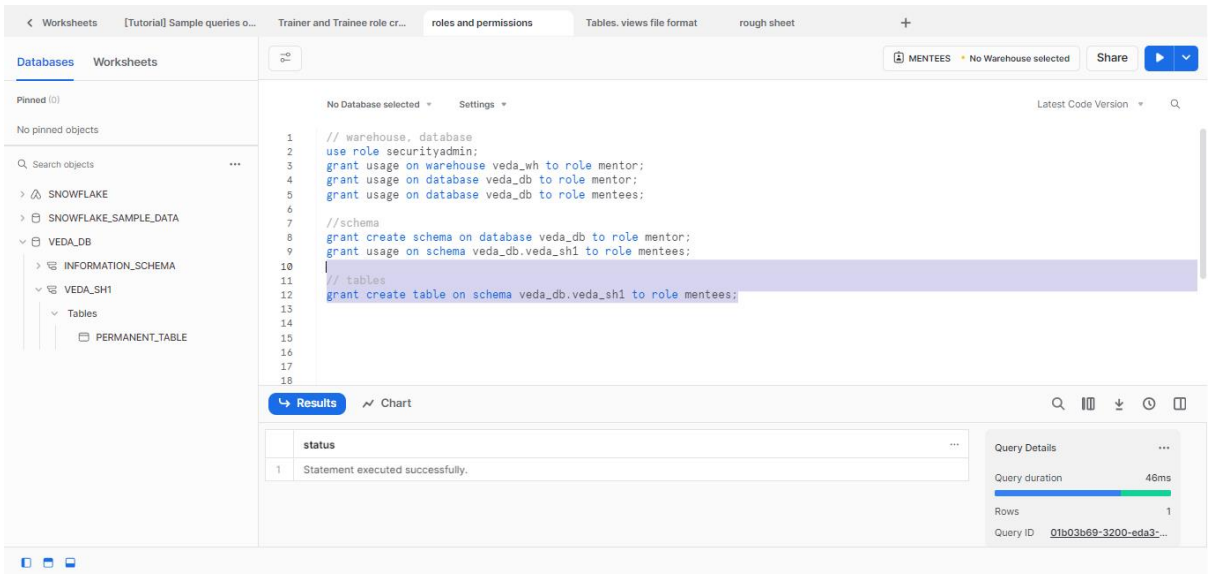
Now I have created the schema using mentor so mentor is the owner of it so I am granting a schema usage privilege to mentees too.



6. **Now I am creating a permanent table under mentees role for that mentees needs to have create table privilege and as mentor is the owner, he needs to give permission in order to create the snowflake object table**



Granted the privilege

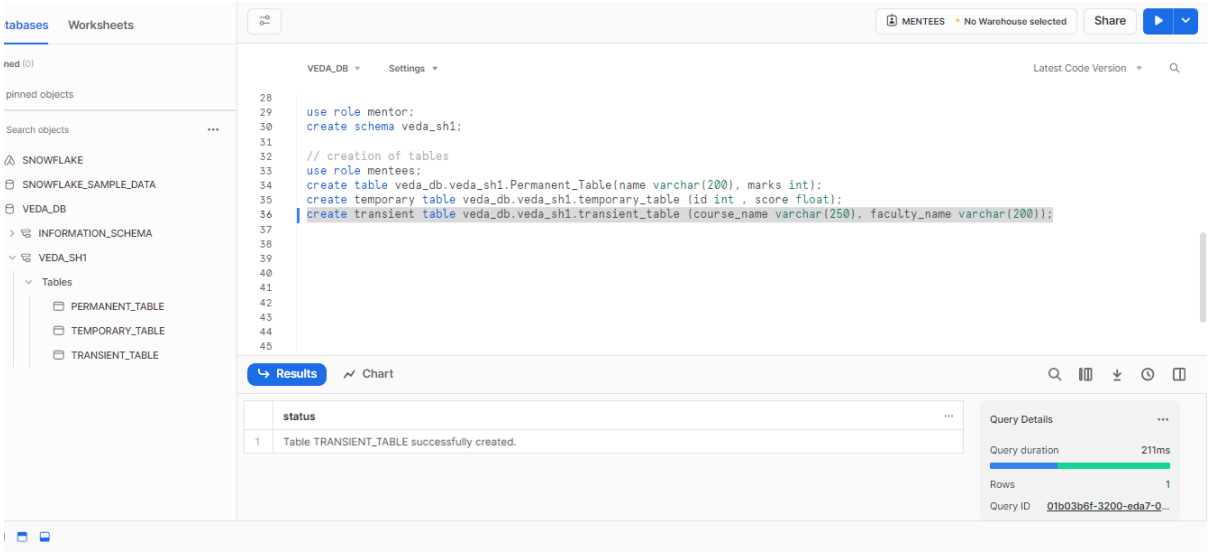


I have created a temporary, transient and permanent table using mentees role

Query :-

```
use role mentees;
create table veda_db.veda_sh1.Permanent_Table(name varchar(200), marks int);
create temporary table veda_db.veda_sh1.temporary_table (id int , score float);
```

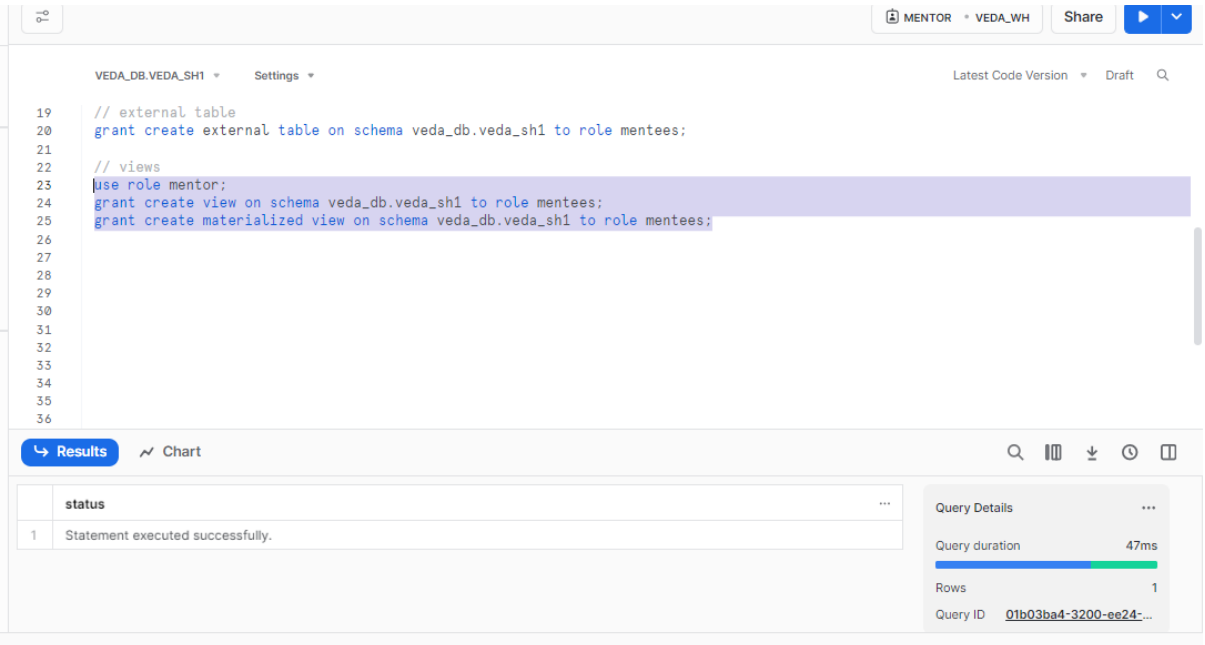
create transient table veda_db.veda_sh1.transient_table (course_name varchar(250), faculty_name varchar(200));



7. for views I have granted a create view privilege to mentees using role mentor.

Query :-

use role mentor;
grant create view on schema veda_db.veda_sh1 to role mentees;
grant create materialized view on schema veda_db.veda_sh1 to role mentees;



Now I am creating the normal and secure views using role mentees

Query :-

use role mentees;

create view veda_db.veda_sh1.Normal_View AS select name FROM veda_db.veda_sh1.permanent_table;

create secure view veda_db.veda_sh1.Secure_View AS select marks FROM veda_db.veda_sh1.permanent_table;

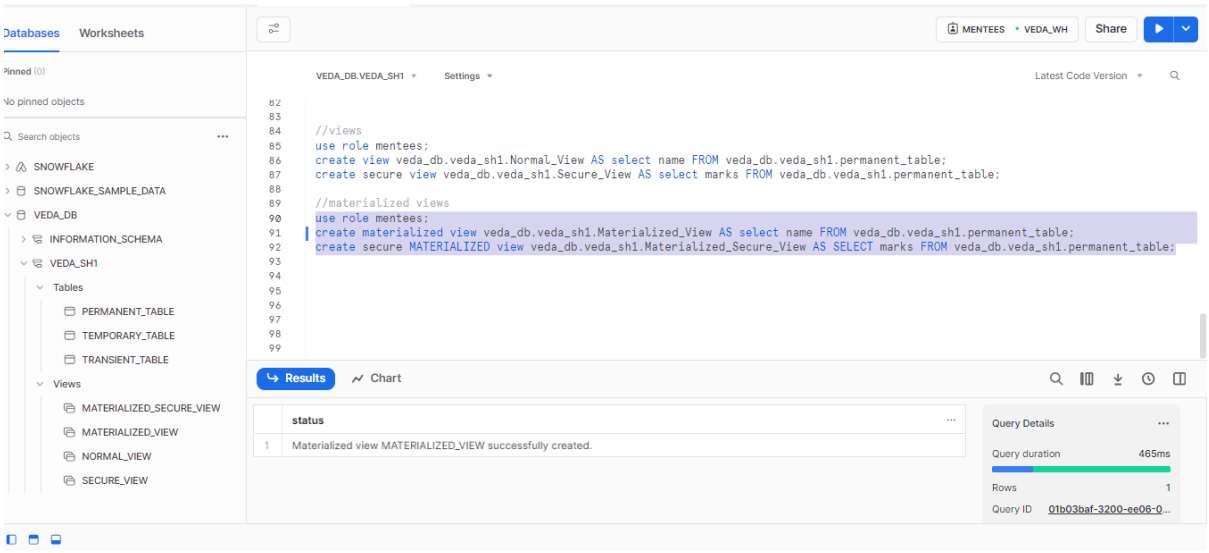
Now I am creating the materialized views

Query:-

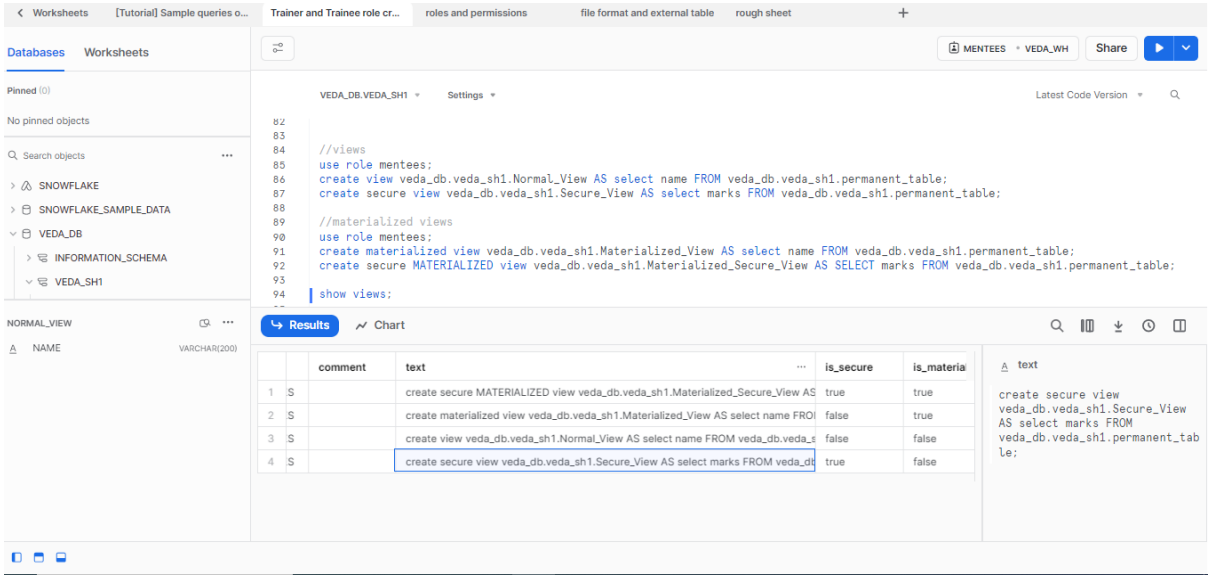
use role mentees;

create materialized view veda_db.veda_sh1.Materialized_View AS select name FROM veda_db.veda_sh1.permanent_table;

create secure MATERIALIZED view veda_db.veda_sh1.Materialized_Secure_View AS SELECT marks FROM veda_db.veda_sh1.permanent_table;



For secure views is secure column has true and for normal views it has false :-



8. Now I am creating an external table :-

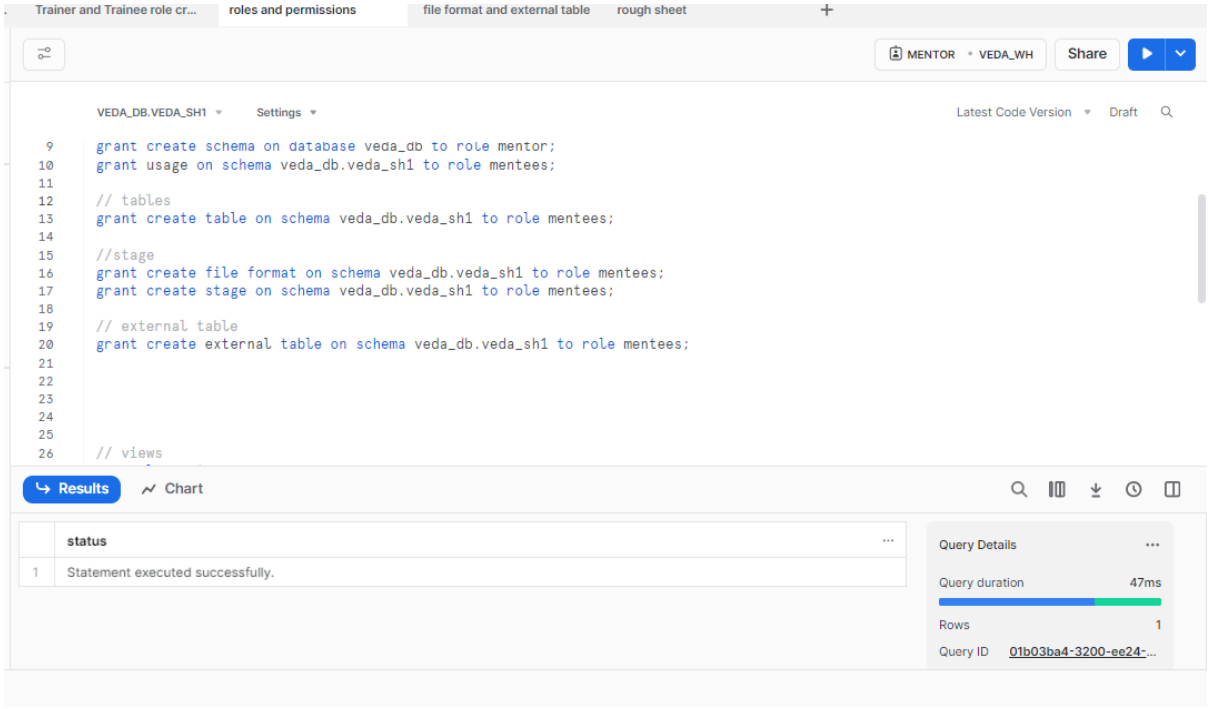
- In amazon s3 bucket I have created a vedabucket-101123
- then I have uploaded a sample csv file then I have got a secret key and access key in order to access the csv file present in external location (s3) from snowflake we need to use these credentials and need to mention the bucket URL like path.
- So now in order to do this we need to create a stage and create stage privilege and create external table privilege need to be granted to mentees using role mentor.

Query :-

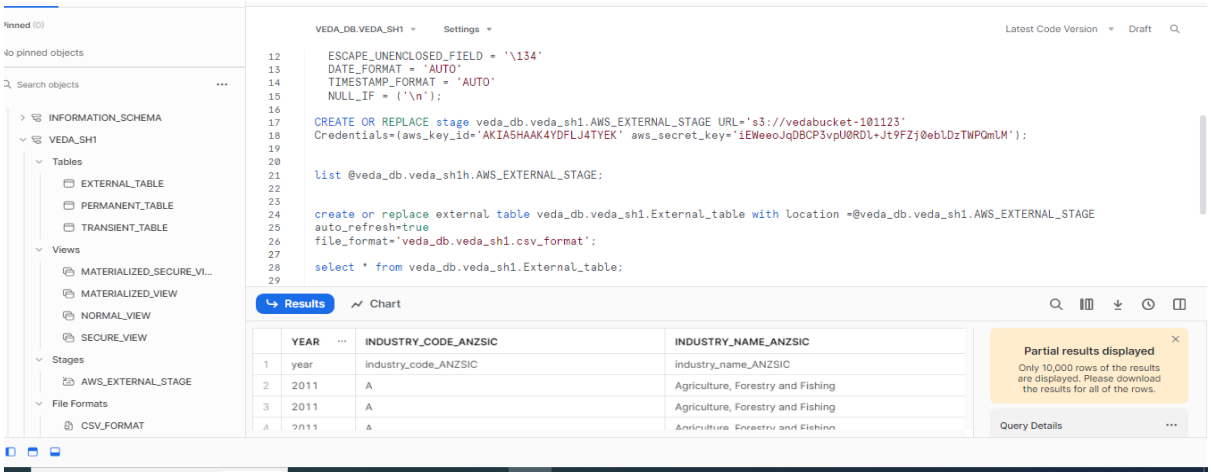
```
Use role mentor;
grant create file format on schema veda_db.veda_sh1 to role mentees;
grant create stage on schema veda_db.veda_sh1 to role mentees;
grant create external table on schema veda_db.veda_sh1 to role mentees;
```

Granting the

1. create external table,
2. create file format and
3. create stage Privileges to mentees using role mentor



- Then I have created a file format (csv format) and then I have Created a Aws external stage and external table and appended all the values in csv file to a list and then the values are represented in table format for this we need to write a sql query and we can see all the values in tabular format.
- As it is a csv file like comma separated file so delimeter is a “,” and configurations of the file format has been set.
- Using select statement I have accessed the values in a csv file which is in s3 bucket for this I have selected a warehouse and then queried and got the values from storage location.



Query :-

Created the file format:-

1. CREATE OR REPLACE FILE FORMAT veda_db.veda_sh1.csv_format

   TYPE = 'CSV'

   COMPRESSION = 'AUTO'

   FIELD_DELIMITER = ','

   RECORD_DELIMITER = '\n'

   SKIP_HEADER = 0

   FIELD_OPTIONALLY_ENCLOSED_BY = '\042'

   TRIM_SPACE = FALSE

   ERROR_ON_COLUMN_COUNT_MISMATCH = TRUE

   ESCAPE = 'none'

   ESCAPE_UNENCLOSED_FIELD = '\134'

   DATE_FORMAT = 'AUTO'

   TIMESTAMP_FORMAT = 'AUTO'

   NULL_IF = ('\n');

Created the stage here :-

1. CREATE OR REPLACE stage veda_db.veda_sh1.AWS_EXTERNAL_STAGE URL='s3://vedabucket-101123'Credentials= (aws_key_id='AKIA5HAAK4YDFLJ4TYEK' aws_secret_key='iEWeeoJqDBCP3vpU0RDl+Jt9FZj0eblDzTWPQmlM');

2. list @veda_db.veda_sh1.AWS_EXTERNAL_STAGE;

Created the external table here :-

3. create or replace external table veda_db.veda_sh1.External_table with location =@veda_db.veda_sh1.AWS_EXTERNAL_STAGE

auto_refresh=true

file_format='veda_db.veda_sh1.csv_format';

To retrieve all the values in csv file :-

select * from veda_db.veda_sh1.External_table;

Sql query in order to see the values in tabular format :-

select value :c1:: string as year,

value :c2:: string as industry_code_ANZSIC,

value :c3:: string as industry_name_ANZSIC,

value :c4:: string as rme_size_grp,

value :c5:: string as variable,

value :c6:: string as value,

value :c7:: string as unit

from veda_db.veda_sh1.External_table