

1. Creating Users

```
SELECT current_user();
SHOW USERS;
CREATE OR REPLACE USER MMALHOTRA2;
```

2. Key_Pair Authentication

```
ALTER USER MMALHOTRA SET
RSA_PUBLIC_KEY='MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEArtzT
L+gKZG5kDR2dMA1R
ajFsJprOONaNdEilBsvv06nI7QXrYmV4ovjuAa12bT2MA5H6EBU2G1Yzyic2lqjl
FXPrDPnWn/KL9yz565ZzrW1mQvS8264I4umdSxGulMCIMppdvQRGczBia5bDxdwS
LnekPrhDrCGRHSc2MO+iyFLGx9ItThK4Wh/VJOKLG4plxE/65aoNwa61BEgvpS4
nQpEiQp+B+kJDXzAefUnjuVfksmcn5dX48JdTNEwaCcaWmCR3eqARCdtj/7CibuZ
YR7RclGSKqZnMI4ywC5HENBZGcXEQpmWnp2JRECH6GHV5lesaA2yqqN0N9PUj
Duy
EwIDAQAB';

DESC USER MMALHOTRA;
```

3. Creating Stock_Data Schema

```
--DDL Statement - Schema for FORX DATA TABLE
CREATE or replace TABLE STOCK_DATA(
  id INTEGER IDENTITY(1,1)
  ,Volume INTEGER
  ,Volume_weighted_avg_pric float
  ,Opening_Price float
  ,Closing_Price float
  ,Highest_Price float
  ,Lowest_Price float
  ,No_of_Transactions INTEGER
  ,Start_Timestamp timestamp
  ,Ticker VARCHAR(16777216)
  ,load_timestamp timestamp default TO_TIMESTAMP_NTZ(current_timestamp));

--Select Statement
select * from FOREX_DATA
limit 5;
```

4. Creating Forex_Data Schema

```
create or replace database TRADEDATA;
```

```
use TRADEDATA;
```

```
--DDL Statement - Schema for FORX DATA TABLE
```

```
CREATE or replace TABLE FOREX_DATA(  
  id INTEGER IDENTITY(1,1)  
  ,Volume INTEGER  
  ,Volume_weighted_avg_pric float  
  ,Opening_Price float  
  ,Closing_Price float  
  ,Highest_Price float  
  ,Lowest_Price float  
  ,No_of_Transactions INTEGER  
  ,Start_Timestamp timestamp  
  ,Ticker VARCHAR(16777216)  
  ,load_timestamp timestamp default TO_TIMESTAMP_NTZ(current_timestamp));
```

```
--Select Statement
```

```
select * from FOREX_DATA  
limit 5;
```

```
CREATE or replace TABLE FOREX_DATA_RESTORE(  
  id INTEGER IDENTITY(1,1)  
  ,Volume INTEGER  
  ,Volume_weighted_avg_pric float  
  ,Opening_Price float  
  ,Closing_Price float  
  ,Highest_Price float  
  ,Lowest_Price float  
  ,No_of_Transactions INTEGER  
  ,Start_Timestamp timestamp  
  ,Ticker VARCHAR(16777216)  
  ,load_timestamp timestamp default TO_TIMESTAMP_NTZ(current_timestamp));
```

5. Creating view to see correlation between different currencies:

```
USE DATABASE TRADEDATA;
```

```
CREATE VIEW correlation_matrix_view AS
```

```

SELECT
  a.Ticker AS ticker_a,
  b.Ticker AS ticker_b,
  CORR(a.Closing_Price, b.Closing_Price) AS correlation
FROM
  forex_data a
JOIN
  forex_data b
ON
  a.Start_Timestamp = b.Start_Timestamp
  AND a.Ticker < b.Ticker
GROUP BY
  a.Ticker, b.Ticker;

```

6. Setting User Privileges

```

ASSIGN ROLE FOR
1. ANALYST: VIEW ACCESS 2. DEVELOPER : VIEW AND EDIT
DROP VIEW daily_summary_view;

```

```

CREATE VIEW daily_summary_view AS
SELECT
  TICKER,
  DATE_TRUNC('day', START_TIMESTAMP) AS trading_date,
  CLOSING_PRICE,
  AVG(CLOSING_PRICE) OVER (PARTITION BY TICKER ORDER BY
START_TIMESTAMP ROWS BETWEEN 4 PRECEDING AND CURRENT ROW) AS
FIVE_DAY_ROLLING_AVG
FROM
  FOREX_DATA;

```

7. Some Backup Operations

```

CREATE STAGE TRADE_DATA_BACKUP;

DROP FILE FORMAT forex_backup_file_format;

CREATE FILE FORMAT forex_backup_file_format
  TYPE = CSV
  FIELD_DELIMITER = ','
  SKIP_HEADER = 1
  NULL_IF = ('')
  FIELD_OPTIONALLY_ENCLOSED_BY = '';

CREATE OR REPLACE TASK my_backup_task
  WAREHOUSE = TRADE_DATA_WH

```

```
SCHEDULE = 'USING CRON 0 0 * * * UTC'-- run the task daily
AS
COPY INTO @TRADE_DATA_BACKUP
FROM FOREX_DATA
FILE_FORMAT = forex_backup_file_format;

SELECT * FROM SNOWFLAKE.ACCOUNT_USAGE.STAGES;

-- ALTER TASK my_backup_task RUN NOW;

SHOW TASKS IN TRADEDATA.public;

ALTER TASK my_backup_task RESUME;
-- RESUME TASK my_backup_task;

EXECUTE TASK my_backup_task;

USE DATABASE TRADE_DATA;

SELECT *
FROM @TRADE_DATA_BACKUP;

--restore from backup

COPY INTO FOREX_DATA_RESTORE
FROM (SELECT * FROM @TRADE_DATA_BACKUP/data_0_0_0.csv.gz)
FILE_FORMAT = (TYPE = CSV, COMPRESSION = 'gzip', SKIP_HEADER = 1)
ON_ERROR = CONTINUE;
```