**Data Loading AWS S3**

Data from AWS S3 can be loaded into Snowflake either by using the COPY INTO command for batch loads or Snowpipe for continuous ingestion. In my project, I used an external stage pointing to the S3 bucket, then loaded data into Snowflake tables with COPY INTO. For the frequent files, I used Snowpipe with auto-ingest for near real-time loading.”

-- Create AWS Free Tier Account

-- Create the S3 bucket and the required folders

-- IAM Role for Bucket

-- Create Integration Object - Get the role ARN and copy below in storage\_aws\_role\_arn

-- copy the S3 URL in storage\_allowed\_location

-- If You re-create the storage integration object. You need to update the storage\_iam\_user\_arn and storage\_aws\_external\_id

-- at aws role - edit trust relationship

create or replace storage integration int\_aws\_s3 -- s3://snowflakes3datafiles/csvfiles/

type = external\_stage

storage\_provider = s3

enabled = true

storage\_aws\_role\_arn = 'arn:aws:iam::755743318453:role/snowflake-s3-full-access-role'

storage\_allowed\_locations = ('s3://snowflakes3datafiles/csvfiles/')

--storage\_blocked\_locations = ('<>')

comment = 'This is the integration object for loading the files from AWS S3 to Snowflake' ;

-- Describe Intergation Object

desc integration int\_aws\_s3 ; -- GH34981\_SFCRole=2\_h2fMwtaaY41roiJx/LjqlfCVDSg=

-- Copy ARN and External ID in IAM Role at AWS

-- Describe Intergation Object

desc integration int\_aws\_s3 ;

-- Copy ARN and External ID in IAM Role at AWS

-- create file format - since it will be used in external stage and copy command. so creating is better

create or replace file format file\_format\_csv skip\_header = 1 compression = none;

--describe file formats

describe file format file\_format\_csv ;

-- create external stage for loading data

create or replace stage ext\_stage\_ld

url = 's3://snowflakes3datafiles/csvfiles/dataload/'

storage\_integration = int\_aws\_s3

file\_format = file\_format\_csv ;

-- Show stages

show stages ;

-- list

list @ext\_stage\_ld ;

-- Create the tabe to load

create or replace TABLE WEB\_SITES

( WEB\_SITE\_SK NUMBER(38,0),

WEB\_SITE\_ID VARCHAR(16),

WEB\_REC\_START\_DATE DATE,

WEB\_REC\_END\_DATE DATE,

WEB\_NAME VARCHAR(50),

WEB\_OPEN\_DATE\_SK NUMBER(38,0),

WEB\_CLOSE\_DATE\_SK NUMBER(38,0),

WEB\_CLASS VARCHAR(50),

WEB\_MANAGER VARCHAR(40),

WEB\_MKT\_ID NUMBER(38,0),

WEB\_MKT\_CLASS VARCHAR(50),

WEB\_MKT\_DESC VARCHAR(100),

WEB\_MARKET\_MANAGER VARCHAR(40),

WEB\_COMPANY\_ID NUMBER(38,0),

WEB\_COMPANY\_NAME VARCHAR(50),

WEB\_STREET\_NUMBER VARCHAR(10),

WEB\_STREET\_NAME VARCHAR(60),

WEB\_STREET\_TYPE VARCHAR(15),

WEB\_SUITE\_NUMBER VARCHAR(10),

WEB\_CITY VARCHAR(60),

WEB\_COUNTY VARCHAR(30),

WEB\_STATE VARCHAR(2),

WEB\_ZIP VARCHAR(10),

WEB\_COUNTRY VARCHAR(20),

WEB\_GMT\_OFFSET NUMBER(5,2),

WEB\_TAX\_PERCENTAGE NUMBER(5,2) );

-- Copy command

copy into web\_sites from @ext\_stage\_ld/web\_sites.csv ;

-- select

select \* from web\_sites ;

-- Cleanup

drop stage ext\_stage\_ld ;

drop table web\_sites ;