**Stages**

A **Stage** in Snowflake is simply a **location where data files are stored** before being loaded into or unloaded from tables.

There are **3 main types of stages**:

**1️ User Stage**

* Each user automatically gets a personal stage.
* Location: @~
* Only accessible to that user.

**2 Table Stage**

* Every table has its own stage.
* Location: @%table\_name
* Files uploaded here can only be used by that table.

**3 Named Stage**

* A stage you explicitly create with CREATE STAGE.
* Can be **internal** (inside Snowflake storage) or **external** (points to AWS S3, Azure Blob, or GCS).
* Reusable across multiple tables/pipelines.

In my projects, I mostly worked with **external named stages** for integrating S3 and Azure Blob, and sometimes used table stages for quick one-off loads during testing.”

list @int\_stg;

create table salary (Age number , Sal number) ;

-- TABLE STAGE

list @%salary;

--Via snowsql, table stage should have same name as table, can not be altered or dropped, not a DB object

--Use this if the requirement is to load files in single table

-- Adding the file to table stage, lets see the simple file

-- DO THIS FIRST

-- Place the attached file salary.csv at your <path> in the system

-- Run it via snowsql

put file:///Users/<path>/salary.csv @%salary;

--check the records in table\_stage

select \* from salary ;

--list the files in table stage

list @%salary;

-- Select specific columns from table stage

select t.$1 as age, t.$2 as salary from @%salary t;

-- Can directly query the tabe stage as well

select \* from @%salary t; -- direct select \* works in table stages

--use copy command to load the data in to table\_stage

-- can specify file format option here if file type is not csv

copy into salary from @%salary ;

-- Validate the rows in tabe\_stage

select \* from salary ;

--cleanup

drop table salary ; -- dropping table will remove the data from stage table\_stage

-- OR

remove @%salary pattern='.\*.csv' ; -- to reload, we can remove the files.

select \* from @%salary t;

-- Show stages

show stages;

-- DO BELOW STEPS before moving on

-- Place the attached subjects.csv file at the path in your local machine

-- Replace <path> with your local directiory path in the below script

-- Replace <user> with your username

-- Run via snowsql - before that lets see the file

put file:///Users/<path>/subjects.csv @~/<user>;

put file:///Users/<path>/subjects.csv @~/<user>;

--list

list @~;

-- see the data in stage

select t.$1, t.$2, t.$3, t.$4 from @~ t;

select \* from @~/<user> t; -- doesn't work, works in table stage

-- Create the table for user stage data

create table subjects (name string, sub1 string, sub2 string, sub3 string) ;

-- check the table

select \* from subjects ;

-- Copy the data

-- can give file format option here, if file type is not default csv

copy into subjects from @~ ;

-- select the data

select \* from subjects ;

-- Cleanup

drop table subjects ;

remove @~ ; -- remove files for re-run – can’t drop user stage

list @~;