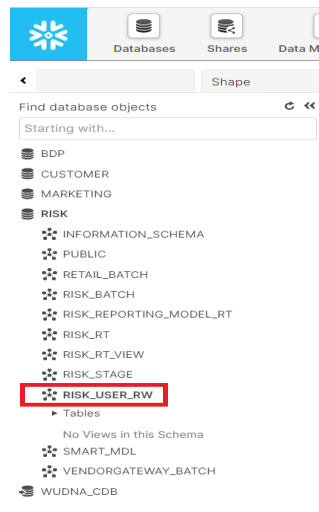


How to load an external file into a table in Snowflake

Determine the schema

To be able to load an external file (CSV, JSON, XML) into Snowflake the user needs to have privileges to insert rows in a table and/or create a table where the new data will be loaded.

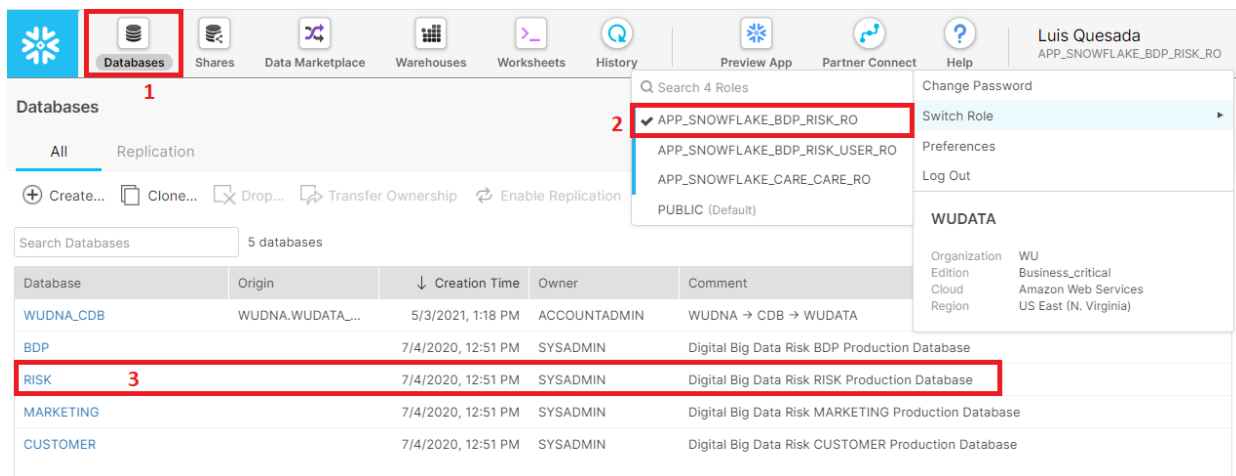
To create a table, the user selects the schema where he has the privileges and can use the web interface or a DDL (Data Definition Language) statement (CREATE TABLE). For the fraud team most user will have access to the RISK_USER_RW schema in the RISK database.



Create a new table (if needed)

The steps to create a new table using the web interface are as follows:

1. Go to Databases
2. Make sure the selected role has the required privileges
3. Select the database



Once the database is selected, a list of tables is displayed. Select Create

Databases > RISK Last refreshed: 3:03:43 PM

Tables Views Schemas Stages File Formats Sequences Pipes

Create... Create Like... Clone... Load Data... Drop... Transfer Ownership

Table Name	Schema	Creation Time	Owner	Rows	Size	Comment
TEST_TABLE_CREATION_3120...	RISK_USER_RW	7/14/2021, 4:43:27 AM	APP_SNOWFLAKE...	100	307.5KB	
TEST_TABLE_CREATION_3144...	RISK_USER_RW	7/12/2021, 4:47:38 AM	APP_SNOWFLAKE...	100	334.5KB	
TEST_TABLE_CREATION_3197...	RISK_USER_RW	7/14/2021, 6:03:17 AM	APP_SNOWFLAKE...	100	300.5KB	
TEST_TABLE_CREATION_3198...	RISK_USER_RW	7/14/2021, 5:44:08 AM	APP_SNOWFLAKE...	100	330KB	
TMP_317591_DELETE	RISK_USER_RW	12:15:27 PM	APP_SNOWFLAKE...			This is the comment
TMP_317591_NPS	RISK_USER_RW	8/10/2021, 11:57:51 AM	APP_SNOWFLAKE...	11.1K	160KB	This is the comment2
UK_NON_T1_WEBMCC_31976...	RISK_USER_RW	8/2/2021, 11:06:23 PM	APP_SNOWFLAKE...	655.0K	113.0MB	
UK_NON_T1_WEBMCC_31976...	RISK_USER_RW	8/2/2021, 11:06:24 PM	APP_SNOWFLAKE...	708.4K	125.1MB	
UK_NON_T1_WEBMCC_31976...	RISK_USER_RW	8/2/2021, 11:06:24 PM	APP_SNOWFLAKE...	707.1K	124.4MB	
UK_NON_T1_WEBMCC_31976...	RISK_USER_RW	8/2/2021, 11:06:24 PM	APP_SNOWFLAKE...	592.1K	105.9MB	
UK_NON_T1_WEBMCC_31976...	RISK_USER_RW	8/2/2021, 11:06:23 PM	APP_SNOWFLAKE...	707.5K	124.5MB	

TMP_317

Grant Pri Privileges g

DELETE an

SELECT gr

It is recommended to define a standard to name the tables. It should include the employee's number to easily identify the owner and an indication if the table is permanent or long term or temporary.

For example:

- TMP_317591_NPS (Temporary from 317591 related to NPS)
- PERM_317591_SHAPE (Permanent from 317591 related to SHAPE).

Because the database administrator periodically drops old tables it is important to add a comment to "permanent" tables to prevent those tables from being dropped.

There are several ways to add a comment and those will be explained in the following paragraphs.

After the create option is selected, the following dialog appears, the user will define the name, the comment, and the required columns. It is important to select the right schema where the user has the privileges to create the table.

Create Table

Table Name*

Schema Name

Comment

Columns* ⊕ Add ✖ Remove

Name	Type	Not Nul	Default
C1	INTEGER	<input type="checkbox"/>	
C2	DOUBLE	<input type="checkbox"/>	
C3	VARCHAR (20)	<input type="checkbox"/>	

[Show SQL](#) Cancel Finish

The user can also create the tables using DDL statements, like this:

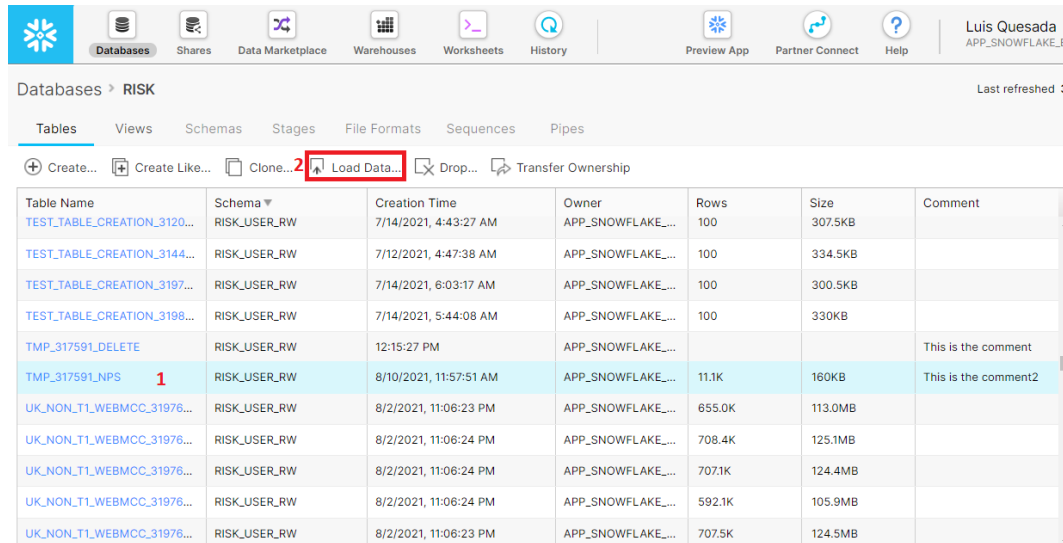
```
CREATE TABLE "RISK"."RISK_USER_RW"."TMP_317591_<DESCRIPTION>"
(
  C1 <datatype>,
  C2 <datatype>,
  C3 <datatype>,
)
COMMENT = 'This is the comment';
```

If the table already exists, it is possible to add the comment using:

```
ALTER TABLE "RISK"."RISK_USER_RW"."TMP_317591_EXISTING_TABLE"
SET COMMENT = 'his is the comment2';
```

Loading Data

After the table has been created, select the table (highlighted in light blue) (1) and click “Load Data...”(2)



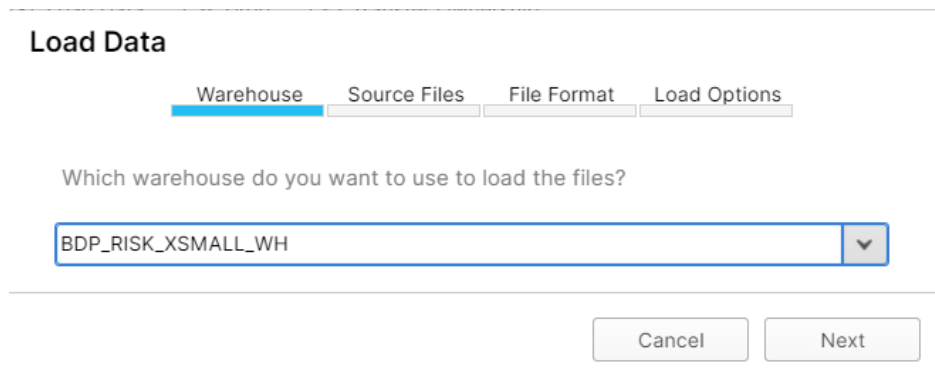
Databases > RISK

Tables Views Schemas Stages File Formats Sequences Pipes

+ Create... + Create Like... Clone... 2 Load Data... Drop... Transfer Ownership

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TEST_TABLE_CREATION_3120...	RISK_USER_RW	7/14/2021, 4:43:27 AM	APP_SNOWFLAKE...	100	307.5KB	
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UK_NON_T1_WEBMCC_31976...	RISK_USER_RW	8/2/2021, 11:06:23 PM	APP_SNOWFLAKE...	707.5K	124.5MB	

The following dialog appears, it includes several steps. In the first it is possible to select the “warehouse” (assigned computational resources) for the process. Usually, no changes are needed here.



Load Data

Warehouse Source Files File Format Load Options

Which warehouse do you want to use to load the files?

BDP_RISK_XSMALL_WH

Cancel Next

In the following step the user can select the file he/she wants to load

Load Data

Warehouse Source Files File Format Load Options

From where do you want to load files?

☒ Load files from your computer

Select Files...

NPS_MTCN.csv (application/vnd.ms-excel) - 1.1MB, last modified: 8/10/2021, 11:39:43 AM

☐ Load files from external stage

Stage +

Path

Cancel Back Next

Next, the format of the file is selected. If the CSV format is not included, the user needs to create it the first time it loads the file, clicking the “+” button.

Load Data

Warehouse Source Files File Format Load Options

HIVE_DEVICE_MAP +

Show SQL Cancel Back Next Load

To create a new file format, fill the required information as shown in the following dialog. Select the correct schema and other details of the file.

Create File Format

Name* CSVFILE

Schema Name RISK_USER_RW

Format Type CSV

Compression Method Auto ?

Column separator Comma ?

Row separator New Line ?

Header lines to skip 0 ?

Field optionally enclosed by None ?

Null String \\N ?

☐ Trim space before and after ?

Show SQL Cancel Finish

Finally select the option to determine what to do when an error is found

Load Data

Warehouse

Source Files

File Format

Load Options

What should the load do if it encounters an error while parsing a file?

☐ Do not load any data in the file

☒ Stop loading, rollback and return the error

☐ Do not load any data in the file if the error count exceeds:

Threshold ?

☐ Continue loading valid data from the file

[Show SQL](#)

Cancel

Back

Load

If the result is successful, the number of rows parsed and loaded will be shown:

Load Results

Loaded	File	Rows Parsed	Rows Loaded
✓	NPS_MTCN_CSV.csv	5529	5529

OK