This is not mandatory reading, but here's the code we'll run in the UDFs & UDTFs videos. It may come in handy when you're doing the associated hands-on assignment.

---> here’s an example of a function in action!

SELECT ABS(-14);

---> here’s another example of a function in action!

SELECT UPPER('upper');

---> see all functions

SHOW FUNCTIONS;

SELECT MAX(SALE\_PRICE\_USD) FROM TASTY\_BYTES.RAW\_POS.MENU;

---> use a particular database

USE DATABASE TASTY\_BYTES;

---> create the max\_menu\_price function

CREATE FUNCTION max\_menu\_price()

RETURNS NUMBER(5,2)

AS

$$

SELECT MAX(SALE\_PRICE\_USD) FROM TASTY\_BYTES.RAW\_POS.MENU

$$

;

---> run the max\_menu\_price function by calling it in a select statement

SELECT max\_menu\_price();

SHOW FUNCTIONS;

---> create a new function, but one that takes in an argument

CREATE FUNCTION max\_menu\_price\_converted(USD\_to\_new NUMBER)

RETURNS NUMBER(5,2)

AS

$$

SELECT USD\_TO\_NEW\*MAX(SALE\_PRICE\_USD) FROM TASTY\_BYTES.RAW\_POS.MENU

$$

;

SELECT max\_menu\_price\_converted(1.35);

---> create a Python function

CREATE FUNCTION winsorize (val NUMERIC, up\_bound NUMERIC, low\_bound NUMERIC)

returns NUMERIC

language python

runtime\_version = '3.11'

handler = 'winsorize\_py'

AS

$$

def winsorize\_py(val, up\_bound, low\_bound):

if val > up\_bound:

return up\_bound

elif val < low\_bound:

return low\_bound

else:

return val

$$;

---> run the Python function

SELECT winsorize(12.0, 11.0, 4.0);

---> here’s the reference UDF we’re going to work off of as we make our UDTF

CREATE FUNCTION max\_menu\_price()

RETURNS NUMBER(5,2)

AS

$$

SELECT MAX(SALE\_PRICE\_USD) FROM TASTY\_BYTES.RAW\_POS.MENU

$$

;

USE DATABASE TASTY\_BYTES;

---> create a user-defined table function

CREATE FUNCTION menu\_prices\_above(price\_floor NUMBER)

RETURNS TABLE (item VARCHAR, price NUMBER)

AS

$$

SELECT MENU\_ITEM\_NAME, SALE\_PRICE\_USD

FROM TASTY\_BYTES.RAW\_POS.MENU

WHERE SALE\_PRICE\_USD > price\_floor

ORDER BY 2 DESC

$$

;

---> now you can see it in the list of all functions!

SHOW FUNCTIONS;

---> run the UDTF to see what the output looks like

SELECT \* FROM TABLE(menu\_prices\_above(15));

---> you can use a where clause on the result

SELECT \* FROM TABLE(menu\_prices\_above(15))

WHERE ITEM ILIKE '%CHICKEN%';