

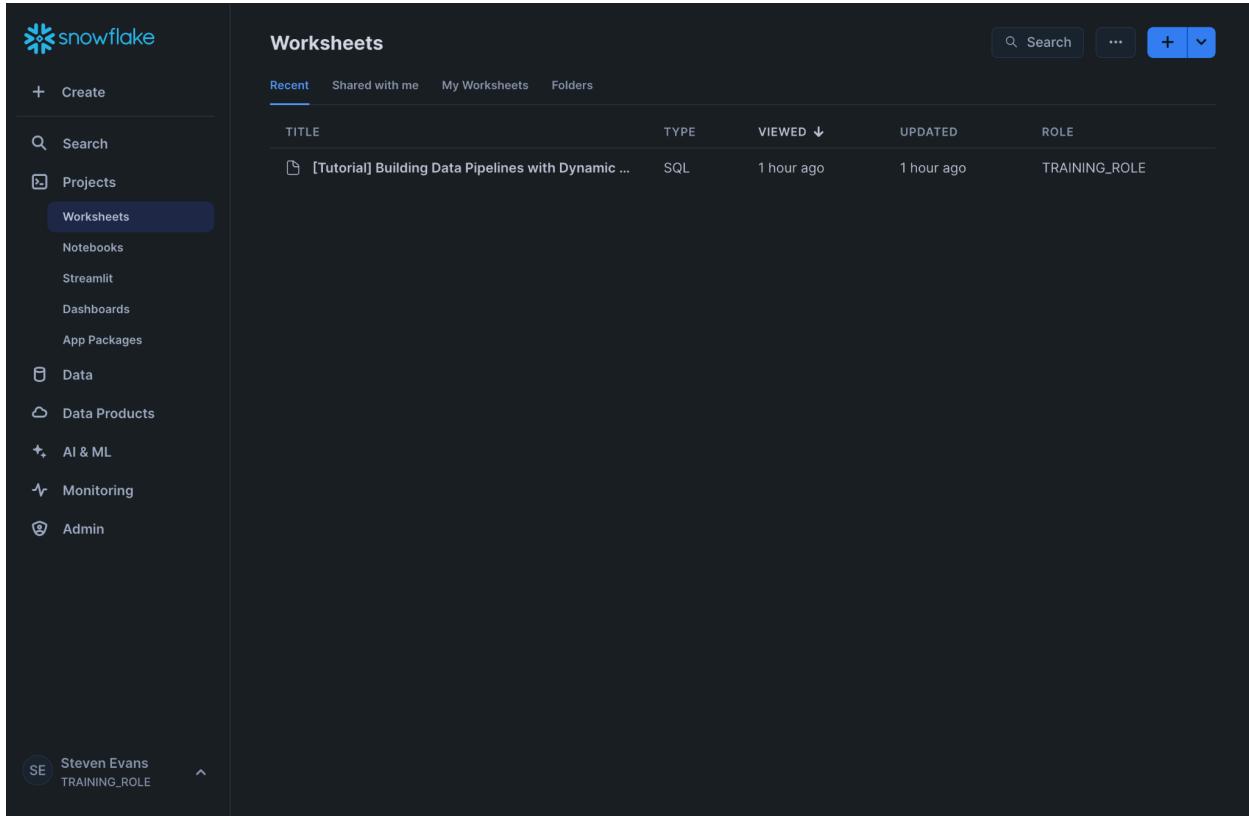
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Snowflake Lab 1

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1. Log in and change user profile



The screenshot shows the Snowflake interface with the 'Worksheets' tab selected. The left sidebar contains navigation links for 'Create', 'Search', 'Projects', 'Worksheets' (which is highlighted in blue), 'Notebooks', 'Streamlit', 'Dashboards', 'App Packages', 'Data', 'Data Products', 'AI & ML', 'Monitoring', and 'Admin'. The main area displays a table titled 'Worksheets' with the following data:

TITLE	TYPE	VIEWED	UPDATED	ROLE
[Tutorial] Building Data Pipelines with Dynamic ...	SQL	1 hour ago	1 hour ago	TRAINING_ROLE

At the bottom left, there is a user profile icon labeled 'SE' and the name 'Steven Evans TRAINING\_ROLE'.

## 2. Uploading a SQL file to a worksheet

The screenshot shows the Snowflake Snowsight interface. On the left, there's a sidebar with user information (Steven Evans), role selection (TRAINING\_ROLE), account details (YJB42236), and various links like My profile, Support, Appearance, Client download, Documentation, Privacy notice, and Classic console. The main area is titled '[Tutorial] Building Data Pip... 01-introduction-to-snowfl...'. It shows a 'Working with Snowsight' folder containing '01-introduction-to-snowflake-and...' and '[Tutorial] Building Data Pipelines with D...'. The 'Worksheets' tab is selected. A modal window displays a block of SQL code:

```
1 -- 1.0.0 Introduction to Snowflake and Snowflake Objects
2 --
3 -- The purpose of this Lab is to familiarize you with Snowflake's
4 -- Snowsight user interface. Specifically, you will learn how to use
5 -- Snowsight worksheets to create and use Snowflake objects that you
6 -- will use to run queries and in your day-to-day work.
7 --
8 -- - How to navigate Snowsight to find the tools you'll need
9 -- - How to create and manage folders and worksheets
10 --
11 -- - How to set the context
12 --
13 -- You are working for Snowbear Air, which is an airline that flies to
14 -- fun destinations all over the world. You've been asked to create a
15 -- few Snowflake objects in a development environment to test out your
16 -- SQL statements. You will need to:
17 -- - Create a database and a schema
18 -- - Create a virtual warehouse
19 -- - Create a table and populate it with data
20 -- HOW TO COMPLETE THIS LAB
21 --
22 -- For the first part of this lab, you will need to use the PDF workbook
23 -- supplied with your course materials. Follow the instructions in the
24 -- PDF to log in and explore the home page.
25 --
26 -- For the second part of the lab, you will load your user-specific .SQL
27 -- and complete the remainder of the lab steps inside a worksheet. The
28 -- .SQL files contain instructions for completing the lab steps, as well
29 -- as the SQL you will need to run.
30 --
31 -- Before getting started, make sure you have downloaded the lab files
32 -- for this course to a convenient location and unzipped the archive.
33 -- When you do this, you will see a folder named USERS. This folder
34 -- contains sub-folders with usernames - locate your username and open
35 -- that folder. These are the SQL files you will use throughout this
36 -- course.
37 --
38 -- Let's get started!
```

At the bottom right of the modal, there's a 'Ask Copilot' button.

## 3. Changing the database

The screenshot shows the same Snowflake Snowsight interface as the previous one, but with a different focus. The 'Databases' tab is selected in the top navigation bar. A dropdown menu is open over the 'SNOWBEARAIR\_DB.MODELED' database entry, listing other databases: SNOWFLAKE, SNOWFLAKE\_SAMPLE\_DATA, TIGER\_DB, and TRAINING\_DB. The 'MODELED' schema is also listed under the database. The main workspace shows the same SQL script as the previous screenshot. The 'Ask Copilot' button is visible at the bottom right of the workspace.

## 4. Creating the Data Warehouse

The screenshot shows the Snowflake UI interface. On the left, there's a sidebar with icons for databases, worksheets, and other navigation. The main area has tabs for 'Databases' and 'Worksheets'. A search bar is at the top. The current tab is 'SNOWBEARAIR\_DB.MODELED'. In the center, there's a code editor window with a dark theme. The code is as follows:

```
191 -- Before you can run any SQL commands, you need a virtual warehouse.
192 -- Use the following SQL to create a virtual warehouse, and to set it in
193 -- your context:
194 |
195 CREATE WAREHOUSE CHIPMUNK_wh WITH
196 WAREHOUSE_SIZE = XSmall
197 INITIALLY_SUSPENDED = true;
198
199 USE WAREHOUSE CHIPMUNK_wh;
200
201 -- If you look in the role/warehouse part of your context, you will now
202 -- see TRAINING_ROLE as your role and CHIPMUNK_WH as your virtual
203 -- warehouse.
204
205 -- 1.5.4 Show the tables that are in your current context.
206
207 SHOW TABLES;
208
209 -- Note that a SHOW command is a metadata operation - so you did not use
210 -- your virtual warehouse. You can tell that the warehouse is suspended
```

Below the code editor is a results table with one row:

	status
1	Warehouse CHIPMUNK_WH successfully created.

On the right side, there are 'Query Details' showing a duration of 88ms, 1 row, and a query ID. There's also an 'Ask Copilot' button.

## 5. Initialize the WH

The screenshot shows the Snowflake Worksheet interface. The left sidebar lists databases: ADMIN, SNOWBEARAIR\_DB, SNOWFLAKE, SNOWFLAKE\_SAMPLE\_DATA, TIGER\_DB, and TRAINING\_DB. The main area displays a query script in the SNOWBEARAIR\_DB.MODELED schema. The script creates a warehouse named CHIPMUNK\_wh and uses it. The results pane shows a single row with status 'Statement executed successfully.' The query details panel indicates a duration of 50ms and 1 row.

```
-- your context:  
193  
194  
195 CREATE WAREHOUSE CHIPMUNK_wh WITH  
196 WAREHOUSE_SIZE = XSmall  
197 INITIALLY_SUSPENDED = true;  
198  
199  
200 USE WAREHOUSE CHIPMUNK_wh;  
201  
202 -- If you look in the role/warehouse part of your context, you will now  
203 -- see TRAINING_ROLE as your role and CHIPMUNK_WH as your virtual  
204 -- warehouse.  
205  
206 -- 1.5.4 Show the tables that are in your current context.  
207  
208 SHOW TABLES;  
209  
210 -- Note that a SHOW command is a metadata operation - so you did not use  
211 -- your virtual warehouse. You can tell that the warehouse is suspended  
212 -- (not running) because the small dot to the left of the virtual
```

	status
1	Statement executed successfully.

Query Details

- Query duration: 50ms
- Rows: 1
- Query ID: 01b79bcd-0003-a5b0-0...

status Ask Copilot

100% filled

## 6. Showing the tables in the DB

[Tutorial] Building Data Pip... 01-introduction-to-snowfl... + ▾

Databases Worksheets

Search objects

- ADMIN
- SNOWBEARAIR\_DB
- SNOWFLAKE
- SNOWFLAKE\_SAMPLE\_DATA
- TIGER\_DB
- TRAINING\_DB

```

 193 -- your context:
 194
 195 CREATE WAREHOUSE CHIPMUNK_wh WITH
 196 WAREHOUSE_SIZE = XSmall
 197 INITIALLY_SUSPENDED = true;
 198
 199 USE WAREHOUSE CHIPMUNK_wh;
 200
 201 -- If you look in the role/warehouse part of your context, you will now
 202 -- see TRAINING_ROLE as your role and CHIPMUNK_WH as your virtual
 203 -- warehouse.
 204
 205 -- 1.5.4 Show the tables that are in your current context.
 206
 207 SHOW TABLES;]
 208
 209 Note that a SHOW command is a metadata operation - so you did not use
 210 -- your virtual warehouse. You can tell that the warehouse is suspended
 211 -- (not running) because the small dot to the left of the virtual
 212 --

```

Results Chart

	created_on	name	database_name	schema_id	Query Details	...
1	2024-08-21 10:44:44.934 -0700	ESTIMATED_DELAYS	SNOWBEARAIR_DB	MODELED	Query duration 81ms	
2	2024-08-21 10:44:43.385 -0700	LUGGAGE_STATUS	SNOWBEARAIR_DB	MODELED	Rows 3	
3	2024-08-21 10:44:41.975 -0700	MEMBERS	SNOWBEARAIR_DB	MODELED	Query ID 01b79bcd-0003-a5aa-0...	

Show more ▾

Ask Copilot 100% filled

## 7. Selecting \* from members

[Tutorial] Building Data Pip... 01-introduction-to-snowfl... + ▾

Databases Worksheets

Search objects

- ADMIN
- SNOWBEARAIR\_DB
- SNOWFLAKE
- SNOWFLAKE\_SAMPLE\_DATA
- TIGER\_DB
- TRAINING\_DB

```

 213 -- warehouse name is gray.
 214
 215 -- 1.5.5 Query some tables.
 216 -- During this course, many of our exercises will use data from the
 217 -- SNOWBEARAIR_DB database. Take a look at some of that data:
 218
 219 SELECT *
 220 FROM members
 221 LIMIT 10;
 222
 223
 224 SELECT * FROM MEMBERS LIMIT 10;
 225 SELECT TOP 5
 226   c.c_lastname,
 227   c.c_firstname,
 228   c.c_acctbal
 229   FROM snowbearair_db.promo_catalog_sales.customer c
 230   ORDER BY c.c_acctbal DESC;
 231
 232 SELECT
 233   c.c_firstname,

```

Results Chart

	MEMBER_ID	POINTS_BALANCE	STARTED_DATE	EN	Query Details	...
1	bc1fc0f9-ccb5-46b9-ac8a-e70a44c5b253	2819999	2012-02-06	nu	Query duration 948ms	
2	10f54a6d-a010-4d47-b29e-d0aad565b1c3	3230571	2017-05-11	nu	Rows 10	
3	4cc95016-d078-4d4d-bf19-f8b50b8efabd	7475443	2019-12-20	nu	Query ID 01b79bce-0003-a964-0...	
4	ae1168e1-840f-477d-a03f-8e4f491c0af0	5235957	2020-05-13	nu	Show more ▾	
5	170e0ae1-73e4-411f-877a-25c66919ceae	806553	2017-12-15	nu		
6	02f3b17d-fd94-479f-8c48-9c703f7f6370	7630775	2012-02-28	20	MEMBER_ID 100% filled	
7	64541dcfd-76b4-4f57-b97d-434f9ed564a6	5128459	2017-02-01	nu		

Ask Copilot

## 8. Top 5 customer acct balances

The screenshot shows the Snowflake interface with a query editor and a results table.

**Query Editor:**

```
-- SNOWBEARAIR_DB database. Take a look at some of that data:  
217  
218  
219 SELECT *  
220 FROM members  
221 LIMIT 10;  
222  
223  
224  
225 SELECT TOP 5  
226 C.C_LASTNAME,  
227 C.C_FIRSTNAME,  
228 C.C_ACCTBAL  
229 FROM SNOWBEARAIR_DB.PROMO_CATALOG_SALE.CUSTOMER C  
230 ORDER BY C.C_ACCTBAL DESC;  
231  
232 SELECT  
233 c.firstname,  
234 c.lastname,  
235 o.orderkey,  
236 o.totalprice
```

**Results Table:**

	C_LASTNAME	C_FIRSTNAME	C_ACCTBAL
1	Janek	Minnie	9999.99
2	Kirby	Roberta	9999.96
3	Urshima	Shigehisa	9999.74
4	Al-Enezi	Jacob	9999.72
5	Duncan	Caleb	9999.64

**Query Details:**

- Query duration: 36ms
- Rows: 5
- Query ID: 01b79bd0-0003-a98f-0...

**Buttons:**

- Ask Copilot
- 100% filled

## 9. Selecting the top ten order prices and cust names

The screenshot shows the Snowflake interface with a query editor and a results table.

**Query Editor:**

```

229 FROM SNOWBEARAIR_DB.MODELED
230 ORDER BY C.C_ACCTBAL DESC;
231
232 SELECT
233   c.firstname,
234   c.lastname,
235   o.orderkey,
236   o.totalprice
237   FROM
238   snowbearair_db.promo_catalog_sales.orders
239   JOIN
240   snowbearair_db.promo_catalog_sales.customer
241   ON
242     o.custkey = c.custkey
243   ORDER BY o.totalprice DESC
244   LIMIT 10;
245
246 -- The last query in that series shows how you can select from tables
247 -- that are not in the database and schema that are currently set in
248 -- your context.

```

**Results Table:**

C_FIRSTNAME	C_LASTNAME	O_ORDERKEY	O_TOTALPRICE
Wally	De Vega	1750466	5552.85
Maggie	Ruiz	4722021	5440.89
Sean	Utsunomiya	3043270	5306.04
Harrison	Packington	4576548	5255.91
Robert	Carter	2232932	5227.21
Paolo	Duncan	3586919	5226.44
Fumiko	Kawaguchi	2199712	5155.32

**Query Details:**

- Query duration: 38ms
- Rows: 10
- Query ID: 01b79bd1-0003-a5af-0...

## 10. Creating the DB

The screenshot shows the Snowflake interface with a query editor and a results table.

**Query Editor:**

```

257 -- objects that you will use during this course.
258
259 -- 1.6.1 Create a database called CHIPMUNK_db and set it in your context.
260
261 CREATE DATABASE CHIPMUNK_db;
262
263 CREATE DATABASE CHIPMUNK_db;
264
265 USE DATABASE CHIPMUNK_db;
266
267
268 -- 1.6.2 Create a schema called my_schema in the database you just created.
269
270 CREATE SCHEMA my_schema;
271
272 USE SCHEMA my_schema;
273
274
275 -- 1.6.3 Set context defaults for this course.
276 -- By setting these defaults, you will ensure that these will be part of

```

**Results Table:**

status
Database CHIPMUNK_DB successfully created.

**Query Details:**

- Query duration: 176ms
- Rows: 1
- Query ID: 01b79bd2-0003-a5af-0...

## 11. Initializing the DB

The screenshot shows the Snowflake interface with a code editor and a results panel.

**Code Editor:**

```
257 -- objects that you will use during this course.  
258  
259 -- 1.6.1 Create a database called CHIPMUNK_db and set it in your context.  
260  
261 CREATE DATABASE CHIPMUNK_db;  
262 USE DATABASE CHIPMUNK_db;  
263  
264  
265 -- 1.6.2 Create a schema called my_schema in the database you just created.  
266  
267 CREATE SCHEMA my_schema;  
268  
269 USE SCHEMA my_schema;  
270  
271  
272 -- 1.6.3 Set context defaults for this course.  
273 -- By setting these defaults, you will ensure that these will be part of  
274 -- your context by default each time you open a worksheet in subsequent  
275 -- labs.  
276
```

**Results Panel:**

status	
1	Statement executed successfully.

Query Details:

- Query duration: 105ms
- Rows: 1
- Query ID: 01b79bd3-0003-a5ab-0...

status: 100% filled

Ask Copilot

## 12. Creating the schema

[Tutorial] Building Data Pipelines with Snowflake - 01-introduction-to-snowflake

Databases Worksheets

Search objects

ADMIN BEETLE\_DB CAMEL\_DB CAT\_DB COBRA\_DB COYOTE\_DB DOLPHIN\_DB DRAGON\_DB EAGLE\_DB FALCON\_DB FINCH\_DB FOX\_DB GATOR\_DB GECKO\_DB GOPHER\_DB GORILLA\_DB GRIZZLY\_DB GROUNDHOG\_DB HEDGEHOG\_DB HIPPO\_DB HORNET\_DB SNOWBEARAIR\_DB

CHIPMUNK\_DB.MY\_SCHEMA

257 -- objects that you will use during this course.  
258  
259 -- 1.6.1 Create a database called CHIPMUNK\_db and set it in your context.  
260  
261 CREATE DATABASE CHIPMUNK\_db;  
262 USE DATABASE CHIPMUNK\_db;  
263  
264 -- 1.6.2 Create a schema called my\_schema in the database you just created.  
265  
266 CREATE SCHEMA my\_schema;  
267  
268 CREATE SCHEMA MY\_SCHEMA;  
269 USE SCHEMA my\_schema;  
270  
271 -- 1.6.3 Set context defaults for this course.  
272 -- By setting these defaults, you will ensure that these will be part of  
273 -- your context by default each time you open a worksheet in subsequent  
274 -- labs.  
275  
276

Results

	status
1	Schema MY_SCHEMA successfully created.

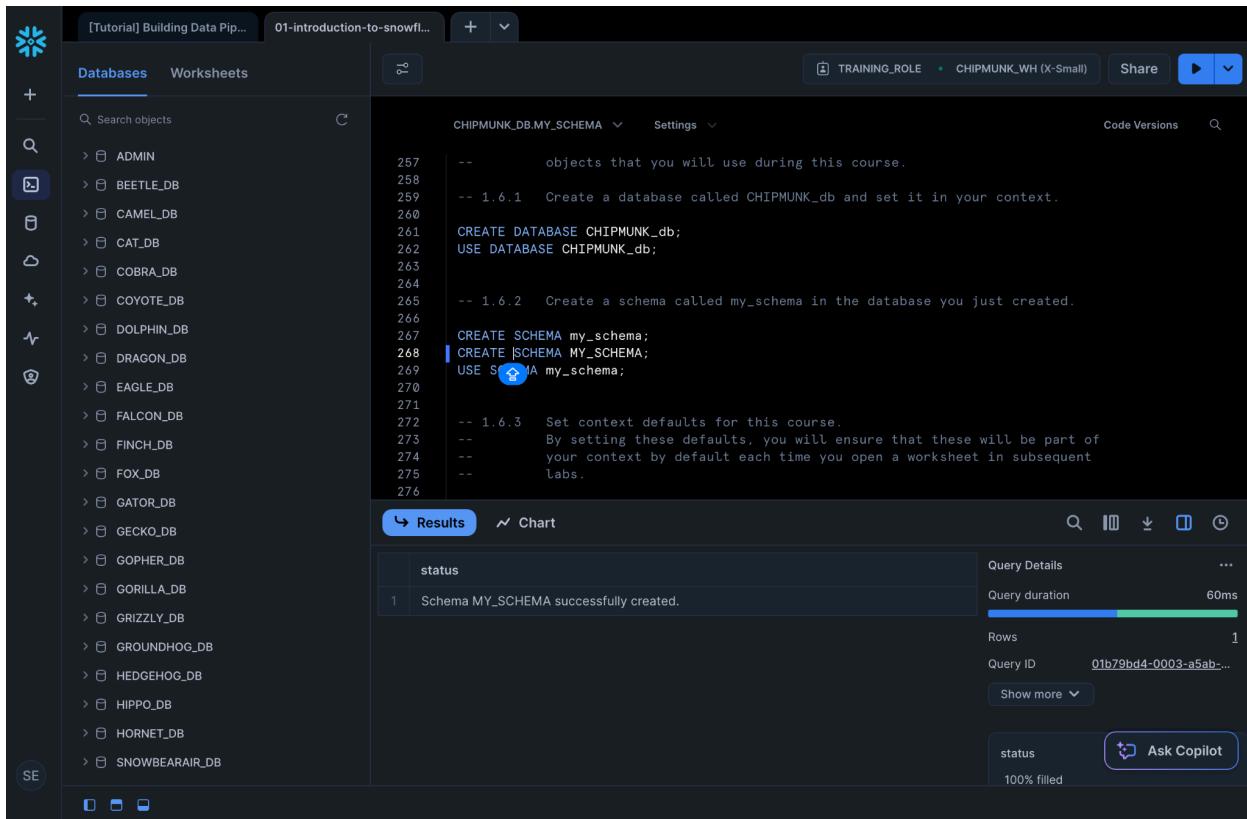
Query Details

Query duration 60ms

Rows 1

Query ID 01b79bd4-0003-a5ab-... Show more

status 100% filled Ask Copilot



### 13. Initializing the schema

The screenshot shows a Snowflake interface with a sidebar on the left containing a tree view of databases and worksheets. The main area is a query editor titled 'CHIPMUNK\_DB.MY\_SCHEMA' with the following code:

```
257 -- objects that you will use during this course.
258
259 -- 1.6.1 Create a database called CHIPMUNK_db and set it in your context.
260
261 CREATE DATABASE CHIPMUNK_db;
262 USE DATABASE CHIPMUNK_db;
263
264
265 -- 1.6.2 Create a schema called my_schema in the database you just created.
266
267 CREATE SCHEMA my_schema;
268
269 USE SCHEMA MY_SCHEMA;
270
271
272 -- 1.6.3 Set context defaults for this course.
273 -- By setting these defaults, you will ensure that these will be part of
274 -- your context by default each time you open a worksheet in subsequent
275 -- labs.
276
```

The results pane shows a table with one row:

	status
1	Statement executed successfully.

Query Details:

- Query duration: 61ms
- Rows: 1
- Query ID: 01b79bd5-0003-a5ac-0...

Bottom right corner: Ask Copilot (100% filled)

## 14. Setting the defaults

The screenshot shows the Snowflake interface with a query editor window. The left sidebar lists various databases and worksheets. The main area displays a script for setting context defaults and creating a temporary table. A progress bar indicates the query is 100% filled.

```
271 -- 1.6.3 Set context defaults for this course.
272 --
273 -- By setting these defaults, you will ensure that these will be part of
274 -- your context by default each time you open a worksheet in subsequent
275 -- labs.
276 ALTER USER CHIPMUNK
277
278 SET default_warehouse = CHIPMUNK_wh
279     default_namespace = CHIPMUNK_db.public
280     default_role = training_role;
281 -- 1.6.4 Create a temporary table.
282
283 CREATE TEMPORARY TABLE my_favorite_actors (name VARCHAR);
284
285 -- Now put a few rows in your table, substituting the placeholder names
286 -- for the names of your actual favorite actors.
287
288 INSERT INTO my_favorite_actors
289 VALUES
290     ('Heath Ledger')
```

**Results**

status	
1	Statement executed successfully.

**Query Details**

- Query duration: 67ms
- Rows: 1
- Query ID: 01b79bd8-0003-a5ac-0...

**Ask Copilot**

## 15. Creating a table

The screenshot shows the Snowflake interface with the following details:

- Top Bar:** [Tutorial] Building Data Pip... 01-introduction-to-snowfl..., +, Share, Code Versions.
- Left Sidebar:** Databases (selected), Worksheets, Search objects, and a list of databases including ADMIN, BADGER\_DB, BEETLE\_DB, BLUEJAY\_DB, BOA\_DB, CAMEL\_DB, CATFISH\_DB, CAT\_DB, CHEETAH\_DB, CHIPMUNK\_DB, COBRA\_DB, COYOTE\_DB, DOLPHIN\_DB, DRAGON\_DB, EAGLE\_DB, FALCON\_DB, FERRET\_DB, FINCH\_DB, FOX\_DB, GATOR\_DB, GECKO\_DB, and GIRAFFE\_DB.
- Central Area:** CHIPMUNK\_DB.MY\_SCHEMA. The code editor contains the following SQL script:

```
271 -- 1.6.3 Set context defaults for this course.
272 --
273 -- By setting these defaults, you will ensure that these will be part of
274 -- your context by default each time you open a worksheet in subsequent
275 -- labs.
276 ALTER USER CHIPMUNK
277
278 SET default_warehouse = CHIPMUNK_wh
279     default_namespace = CHIPMUNK_db.public
280     default_role = training_role;
281 -- 1.6.4 Create a temporary table.
282
283 CREATE TEMPORARY TABLE my_favorite_actors (name VARCHAR);
284 CREATE TEMPORARY TABLE my_favorite_actors (name VARCHAR);
285
286 -- Now put a few rows in your table, substituting the placeholder names
287 -- for the names of your actual favorite actors.
288
289 INSERT INTO my_favorite_actors
290 VALUES
```

**Results Tab:** Shows a table with one row:

status	
1	Table MY_FAVORITE_ACTORS successfully created.

**Query Details:**

- Query duration: 130ms
- Rows: 1
- Query ID: 01b79bda-0003-a5ac-0...

**Bottom Right:** Ask Copilot button.

## 16. Entering values into the table

The screenshot shows the Snowflake UI interface. On the left, there's a sidebar with icons for databases, worksheets, and other navigation. The main area has tabs for 'Databases' and 'Worksheets'. A top bar shows the session name '[Tutorial] Building Data Pip...' and the worksheet title '01-introduction-to-snowfl...'. It also includes buttons for 'Share' and 'Code Versions'.

The code editor displays the following SQL script:

```
CREATE TEMPORARY TABLE my_favorite_actors (name VARCHAR);
CREATE TEMPORARY TABLE my_favorite_actors (name VARCHAR);

-- Now put a few rows in your table, substituting the placeholder names
-- for the names of your actual favorite actors.

INSERT INTO my_favorite_actors
VALUES
    ('Heath Ledger'),
    ('Michelle Pfeiffer'),
    ('Meryl Streep'),
    ('Anthony Hopkins'),
    ('Bruce Lee');

SELECT * FROM my_favorite_actors;
```

The results pane shows a single row inserted:

number of rows inserted
1

Query Details:

- Query duration: 890ms
- Rows: 1
- Query ID: 01b79bdb-0003-a5aa-0...

Ask Copilot: 100% filled

## 17. Querying the table

The screenshot shows the Snowflake SQL interface. On the left, the object browser lists various databases and worksheets. The main area displays a SQL worksheet titled '01-introduction-to-snowfl...'. The code in the worksheet is:

```
288 INSERT INTO my_favorite_actors
289 VALUES
290 ('Heath Ledger'),
291 ('Michelle Pfeiffer'),
292 ('Meryl Street'),
293 ('Anthony Hopkins'),
294 ('Bruce Lee');
295
296
297 SELECT * FROM my_favorite_actors;
298
299
300 -- 1.7.0 Key Takeaways
301 -- - You can create database objects both via the Snowsight UI and by
302 -- executing SQL code in a worksheet. We did this exercise using SQL
303 -- code.
304 -- - You can browse database objects and view their details by using the
305 -- object browser in the worksheet.
306 -- - The context of a worksheet session consists of a role, schema,
307 -- database, and virtual warehouse.
```

The results pane shows a table with the column 'NAME' containing five rows:

NAME
1 Heath Ledger
2 Michelle Pfeiffer
3 Meryl Street
4 Anthony Hopkins
5 Bruce Lee

Query Details:

- Query duration: 289ms
- Rows: 5
- Query ID: 01b79bdc-0003-a5af-0...

Ask Copilot: 100% filled