

Chapter 1: Getting Started with Snowflake

Choose your Snowflake edition

- Standard**
A strong balance between features, level of support, and cost.
- Enterprise**
Standard plus 90-day time travel, multi-cluster warehouses, and materialized views.
- Business Critical**
Enterprise plus enhanced security, data protection, and database failover/fallback.

Account Setup in Progress

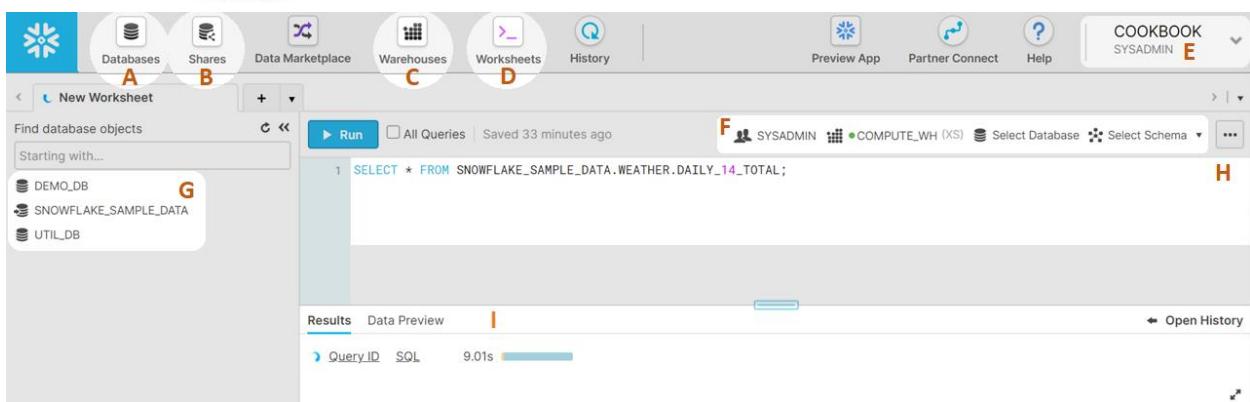
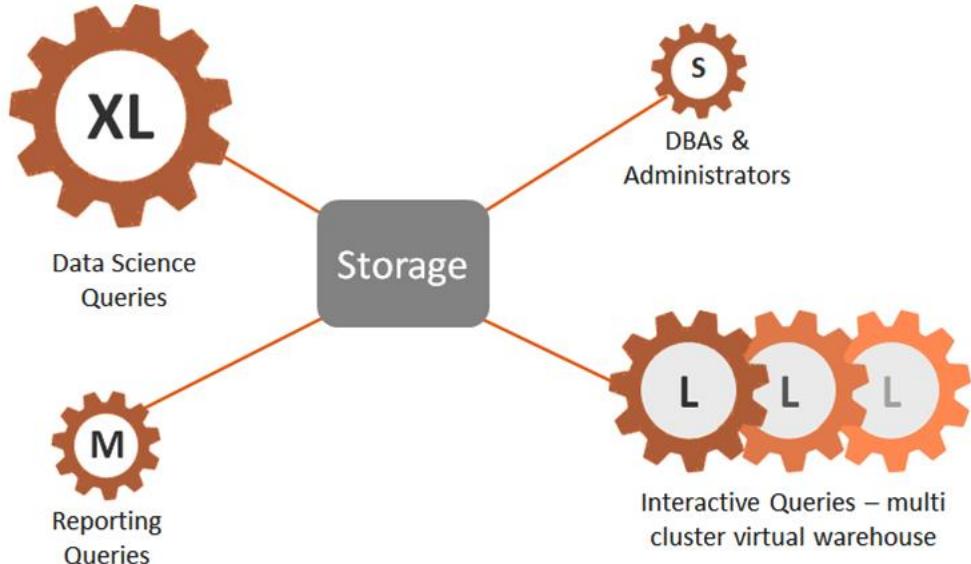
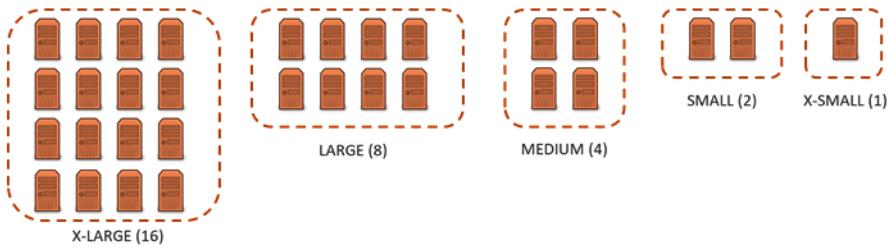


Your account setup may take a few minutes. While you're waiting, learn more about Snowflake.

YOU'RE NOW SIGNED UP!



We have sent an email to activate your account and start using Snowflake (it may take a few minutes to arrive).



```

sfuser@sfhost:~$ java -version
openjdk version "1.8.0_252"
OpenJDK Runtime Environment (build 1.8.0_252-8u252-b09-1~16.04-b09)
OpenJDK 64-Bit Server VM (build 25.252-b09, mixed mode)
sfuser@sfhost:~$ javac -version
javac 1.8.0_252
sfuser@sfhost:~$ 

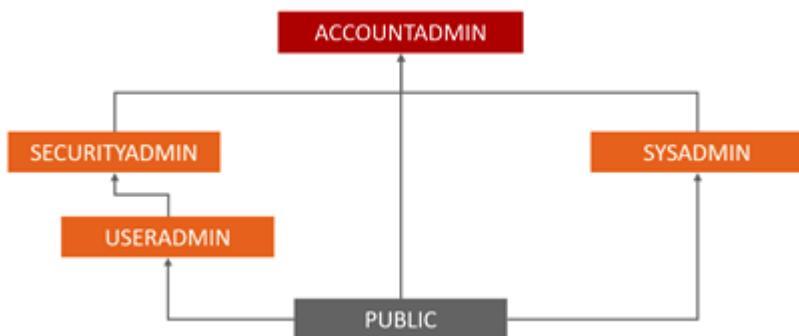
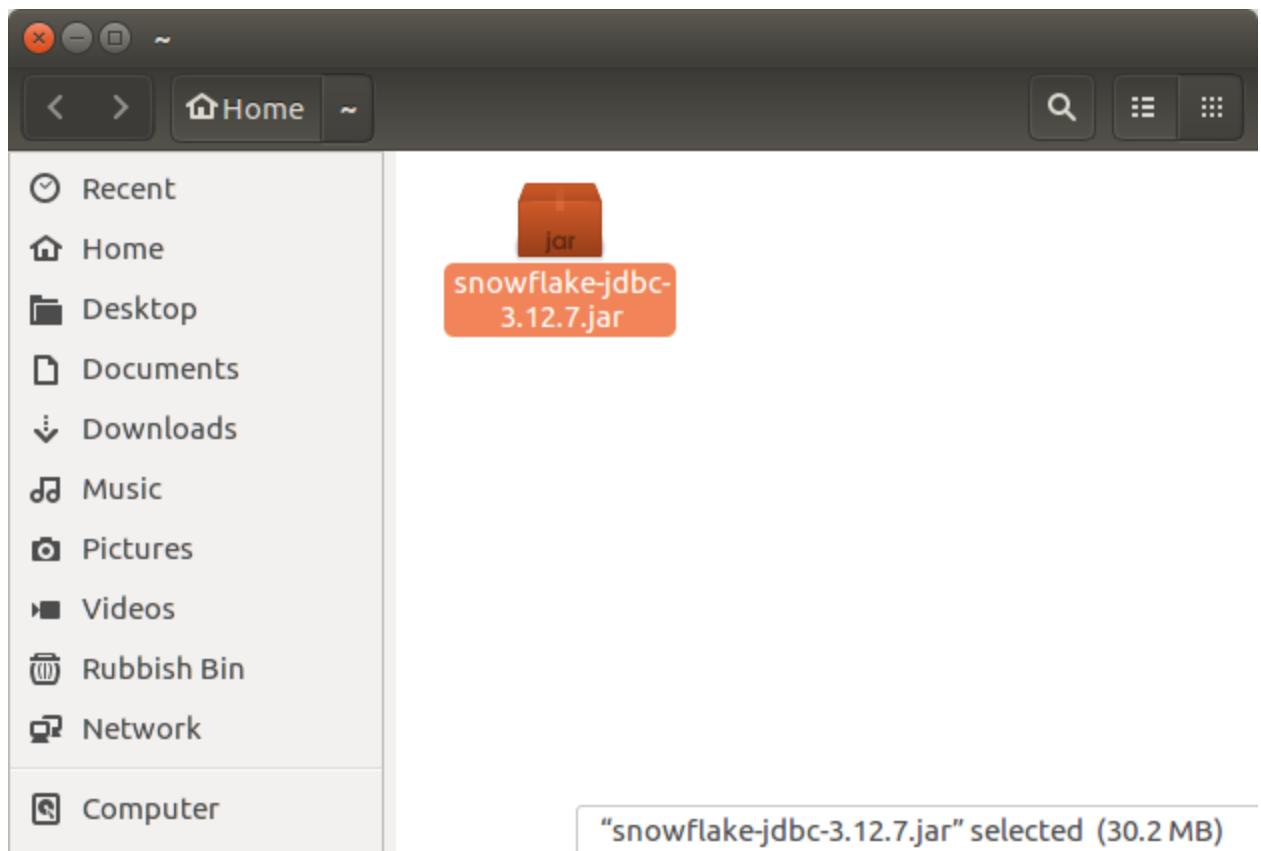
```

screenshots

repo1.maven.org/maven2/net/snowflake/snowflake-jdbc/3.12.7/

net/snowflake/snowflake-jdbc/3.12.7

...			
snowflake-jdbc-3.12.7-javadoc.jar	2020-06-03 22:43	1344357	
snowflake-jdbc-3.12.7-javadoc.jar.asc	2020-06-03 22:43	490	
snowflake-jdbc-3.12.7-javadoc.jar.asc.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7-javadoc.jar.asc.sha1	2020-06-03 22:43	40	
snowflake-jdbc-3.12.7-javadoc.jar.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7-javadoc.jar.sha1	2020-06-03 22:43	40	
snowflake-jdbc-3.12.7-sources.jar	2020-06-03 22:43	440734	
snowflake-jdbc-3.12.7-sources.jar.asc	2020-06-03 22:43	490	
snowflake-jdbc-3.12.7-sources.jar.asc.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7-sources.jar.asc.sha1	2020-06-03 22:43	40	
snowflake-jdbc-3.12.7-sources.jar.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7-sources.jar.sha1	2020-06-03 22:43	40	
snowflake-jdbc-3.12.7-tests.jar	2020-06-03 22:43	739645	
snowflake-jdbc-3.12.7-tests.jar.asc	2020-06-03 22:43	490	
snowflake-jdbc-3.12.7-tests.jar.asc.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7-tests.jar.asc.sha1	2020-06-03 22:43	40	
snowflake-jdbc-3.12.7-tests.jar.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7-tests.jar.sha1	2020-06-03 22:43	40	
snowflake-jdbc-3.12.7.jar	2020-06-03 22:43	30169594	
snowflake-jdbc-3.12.7.jar.asc	2020-06-03 22:43	490	
snowflake-jdbc-3.12.7.jar.asc.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7.jar.asc.sha1	2020-06-03 22:43	40	
snowflake-jdbc-3.12.7.jar.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7.jar.sha1	2020-06-03 22:43	40	
snowflake-jdbc-3.12.7.pom	2020-06-03 22:43	1157	
snowflake-jdbc-3.12.7.pom.asc	2020-06-03 22:43	490	
snowflake-jdbc-3.12.7.pom.asc.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7.pom.asc.sha1	2020-06-03 22:43	40	
snowflake-jdbc-3.12.7.pom.md5	2020-06-03 22:43	32	
snowflake-jdbc-3.12.7.pom.sha1	2020-06-03 22:43	40	



Chapter 2: Managing the Data Life Cycle

status

Database OUR_FIRST_DATABASE successfully created.

name	is_default	is_current	origin	owner	comment	options	retention_time
OUR_FIRST_DATABASE	N	N		SYSADMIN	Our first database		1

name	is_default	is_current	origin	owner	comment	options	retention_time
PRODUCTION_DATABASE	N	N		SYSADMIN	Critical production dat...		15

status

Database TESTING_SCHEMA_CREATION successfully created.

Row	created_on	name
1	2020-06-24 0...	INFORMATION_SCHEMA
2	2020-06-24 0...	PUBLIC

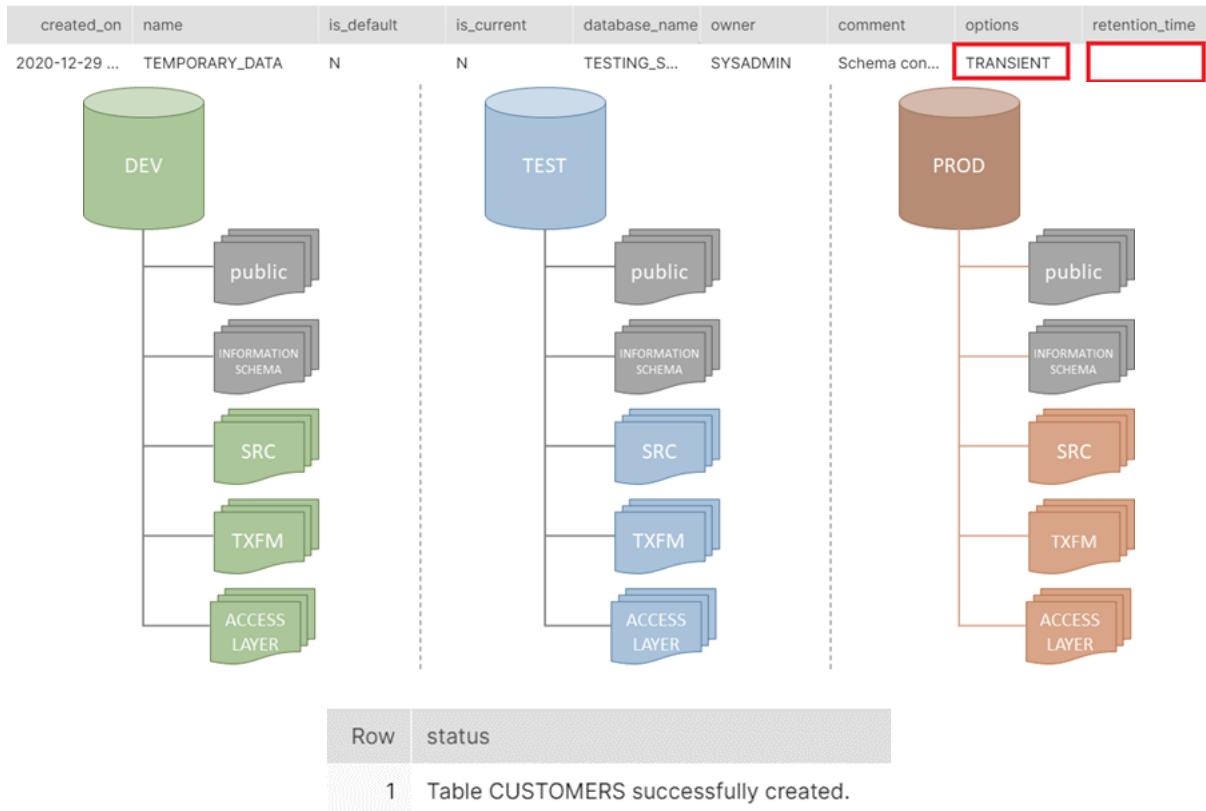
status

Schema A_CUSTOM_SCHEMA successfully created.

created_on	name	is_default	is_current	database_name	owner	comment
2020-09-07 04:0...	A_CUSTOM_SCHE...	N	Y	TESTING_SCHEM...	SYSADMIN	A new custom sc...

status

Schema TEMPORARY_DATA successfully created.



name	type	kind ↓	null?	default	primary key	unique key	check	expression	comment	name
ID	NUMBER(38,0)	COLUMN	N	NULL	N	N	NULL	NULL	NULL	
LAST_NAME	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
FIRST_NAME	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
EMAIL	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
COMPANY	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
PHONE	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
ADDRESS1	VARCHAR(150)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
ADDRESS2	VARCHAR(150)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
CITY	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
STATE	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
POSTAL_CODE	VARCHAR(15)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	
COUNTRY	VARCHAR(50)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL	

name	type	kind	null?	default	primary key	unique key	check	expression	comment
ID	NUMBER(38,0)	COLUMN	N	NULL	N	N	NULL	NULL	NULL
LAST_NAME	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
FIRST_NAME	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
EMAIL	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
COMPANY	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
PHONE	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
ADDRESS1	VARCHAR(16777216)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
ADDRESS2	VARCHAR(16777216)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
CITY	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
STATE	VARCHAR(100)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
POSTAL_CO...	VARCHAR(15)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL
COUNTRY	VARCHAR(50)	COLUMN	Y	NULL	N	N	NULL	NULL	NULL

file	status	rows_parsed	rows_loaded
s3://snowflake-...	LOADED	100	100

ID	LAST_NAME	FIRST_NAME	EMAIL	COMPANY	PHONE	ADDRESS1	ADDRESS2	CITY	STATE
1	Mayo	Leslie	vitae.aliqua...	Henderit LLP	705-5969	496-5176 Ti...	NULL	Kupang	NT
2	Armstrong	Eleanor	Phasellus@p...	In Aliquet Co...	1-193-367-4...	602-5330 V...	NULL	Serang	Banten
3	Fleming	Kasper	non.justo.Pr...	Facilisi Sed ...	559-4754	698 Erat Road	NULL	Hengelo	Ov
4	Sellers	Sawyer	nibh.Donec...	Nec Incorpo...	1-286-709-4...	9979 Nonum...	NULL	Rezzoaglio	LIG
5	Simon	Sarah	neque@adip...	Orci Foundat...	216-3047	409-2909 C...	NULL	Bath	ON
6	Wiggins	Brianna	nec@musPr...	Eu Corp.	1-737-230-2...	6112 Tellus A...	NULL	Robelmont	Luxemburg
7	Small	Melodie	turpis.In@en...	Sociis Natoq...	659-8573	P.O. Box 373...	NULL	Bekasi	West Java

status

Table CUSTOMERS_DEEP_COPY successfully created.

status	COUNT(*)
Table CUSTOMERS_SHALLOW_COPY successfully created.	0

created_on	name	database_name	schema_name	kind	comment	cluster_by	rows	bytes
2021-02-15 01:33:27.035 -0800	CUSTOMERS	SFUSER_DB	PUBLIC	TABLE			100	14336
2021-02-15 01:36:09.155 -0800	CUSTOMERS_DEEP_COPY	SFUSER_DB	PUBLIC	TABLE			100	14336
2021-02-15 01:36:36.915 -0800	CUSTOMERS_SHALLOW_C...	SFUSER_DB	PUBLIC	TABLE			0	0

created_on	name ↓	database_name	schema_name	kind
2021-02-15 01:41:42.976 -0800	CUSTOMERS_TRANS	SFUSER_DB	PUBLIC	TRANSIENT
2021-02-15 01:40:58.116 -0800	CUSTOMERS_TEMP	SFUSER_DB	PUBLIC	TEMPORARY

status ↓

Stage area SFUSER_EXT_STAGE successfully created.

name ↓	size
s3://snowflake-cookbook/ch2/r4/parquet/userdata1.parquet	113629
s3://snowflake-cookbook/ch2/r4/csv/electronic-card-transactions-may-2020.csv	3071640
s3://snowflake-cookbook/ch2/r4/csv/electronic-card-transactions-may-2020-headless.csv	3071481

Row	VALUE
1	{ "birthdate": "3/8/1971", "cc": "6759521864920116", "comments": "1E+02", "country": "Indonesia", "email": "ajordan0@com.com", "first_name": "Amanda", "gender": "Female", "id": 1... }
2	{ "birthdate": "1/16/1968", "cc": "", "comments": "", "country": "Canada", "email": "afreeman1@is.gd", "first_name": "Albert", "gender": "Male", "id": 2, "ip_address": "218.111.175.34", "la...
3	{ "birthdate": "2/1/1960", "cc": "6767119071901597", "comments": "", "country": "Russia", "email": "emorgan2@altervista.org", "first_name": "Evelyn", "gender": "Female", "id": 3, "ip_a...
4	{ "birthdate": "4/8/1997", "cc": "3576031598965625", "comments": "", "country": "China", "email": "driley3@gmpg.org", "first_name": "Denise", "gender": "Female", "id": 4, "ip_addres...
5	{ "birthdate": "", "cc": "5602256255204850", "comments": "", "country": "South Africa", "email": "cburns4@miiitbeian.gov.cn", "first_name": "Carlos", "gender": "", "id": 5, "ip_address...

Row	VALUE
1	{ "c1": "ECTA.S19A1", "c10": "Actual", "c11": "RTS total industries", "c2": "2001.03", "c3": "2462.5", "c5": "F", "c6": "Dollars", "c7": "6", "c8": "Electronic Card Transactions (ANZSIC06) -..." }
2	{ "c1": "ECTA.S19A1", "c10": "Actual", "c11": "RTS total industries", "c2": "2002.03", "c3": "17177.2", "c5": "F", "c6": "Dollars", "c7": "6", "c8": "Electronic Card Transactions (ANZSIC06) ... }
3	{ "c1": "ECTA.S19A1", "c10": "Actual", "c11": "RTS total industries", "c2": "2003.03", "c3": "22530.5", "c5": "F", "c6": "Dollars", "c7": "6", "c8": "Electronic Card Transactions (ANZSIC06) ... }
4	{ "c1": "ECTA.S19A1", "c10": "Actual", "c11": "RTS total industries", "c2": "2004.03", "c3": "28005.1", "c5": "F", "c6": "Dollars", "c7": "6", "c8": "Electronic Card Transactions (ANZSIC06) ... }
5	{ "c1": "ECTA.S19A1", "c10": "Actual", "c11": "RTS total industries", "c2": "2005.03", "c3": "30629.6", "c5": "F", "c6": "Dollars", "c7": "6", "c8": "Electronic Card Transactions (ANZSIC06) ... }

Row	CARD_SUM	PERIOD
1	2462.5	2001.03
2	17177.2	2002.03
3	22530.5	2003.03
4	28005.1	2004.03
5	30629.6	2005.03

status

View DATE_WISE_ORDERS successfully created.

✓ [Query ID](#) [SQL](#) 2m30s  2,466 rows

Filter result...



Copy

Columns ▾

Row	ORDER_DATE	TOT_QTY	TOT_PRICE
1	1994-03-30	63622799.00	95411212824.65
2	1995-03-03	63456797.00	95128548537.07
3	1993-02-28	63617322.00	95384743432.46

✓ [Query ID](#) [SQL](#) 2m50s  1 rows

Filter result...



Copy

Row status

1 Materialized view DATE_WISE_ORDERS_FAST successfully created.

Chapter 3: Loading and Extracting Data into and out of Snowflake

The screenshot shows the AWS IAM Role creation interface. At the top, there's a search bar labeled "Filter". Below it is a table with columns: "Service", "Access level", "Resource", and "Request condition". A single row is shown: "Allow (1 of 238 services) Show remaining 237" for S3 with "Limited: List, Read, Write" access, "Multiple" resources, and "None" request condition.

Below this is another table for "Policy name" with a single row selected: "ETL_ACCESS" with "None" used as. A "Review" section follows, containing fields for "Role name*" (set to "Role_For_Snowflake"), "Role description" (empty), and "Trusted entities" (set to "The account 111111111111"). Policies assigned are listed as "ETL_ACCESS".

Role ARN	arn:aws:iam::ole/Role_For_Snowflake	Edit	
Role description		Edit	
Instance Profile ARNs		Edit	
Path	/		
Creation time	2020-07-17 23:44 UTC+1000		
Last activity	Not accessed in the tracking period		
Maximum CLI/API session	1 hour	Edit	
Row	property	property_type	property_value
1	ENABLED	Boolean	true
2	STORAGE_PROVIDER	String	S3
3	STORAGE_ALLOWED_LOCATIONS	List	s3://snowflake-cookbook-c3-r2
4	STORAGE_BLOCKED_LOCATIONS	List	
5	STORAGE_AWS_IAM_USER_ARN	String	arn:aws:iam::user/aqnm-...
6	STORAGE_AWS_ROLE_ARN	String	arn:aws:iam::role/Role_Fo...
7	STORAGE_AWS_EXTERNAL_ID	String	OH95958_S j+olPvw7lk...

[Permissions](#) [Trust relationships](#) [Tags](#) [Access Advisor](#) [Revoke sessions](#)

You can view the trusted entities that can assume the role and the access conditions for the role. [Show policy document](#)

[Edit trust relationship](#)

Trusted entities

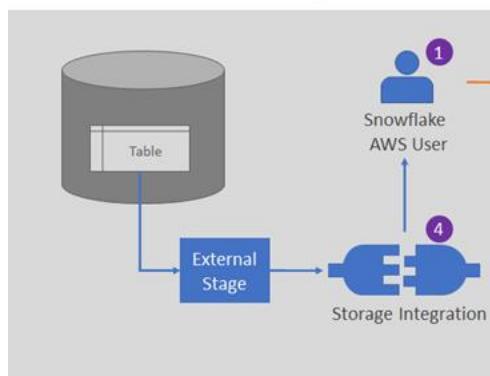
The following trusted entities can assume this role.

Conditions

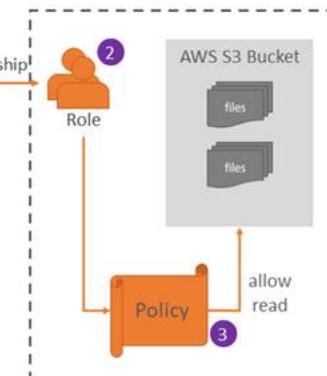
The following conditions define how and when trusted entities can assume the role.

Row	name	size	md5
1	s3://snowflake-cookbook-...	0	d41d8cd98f00b204e

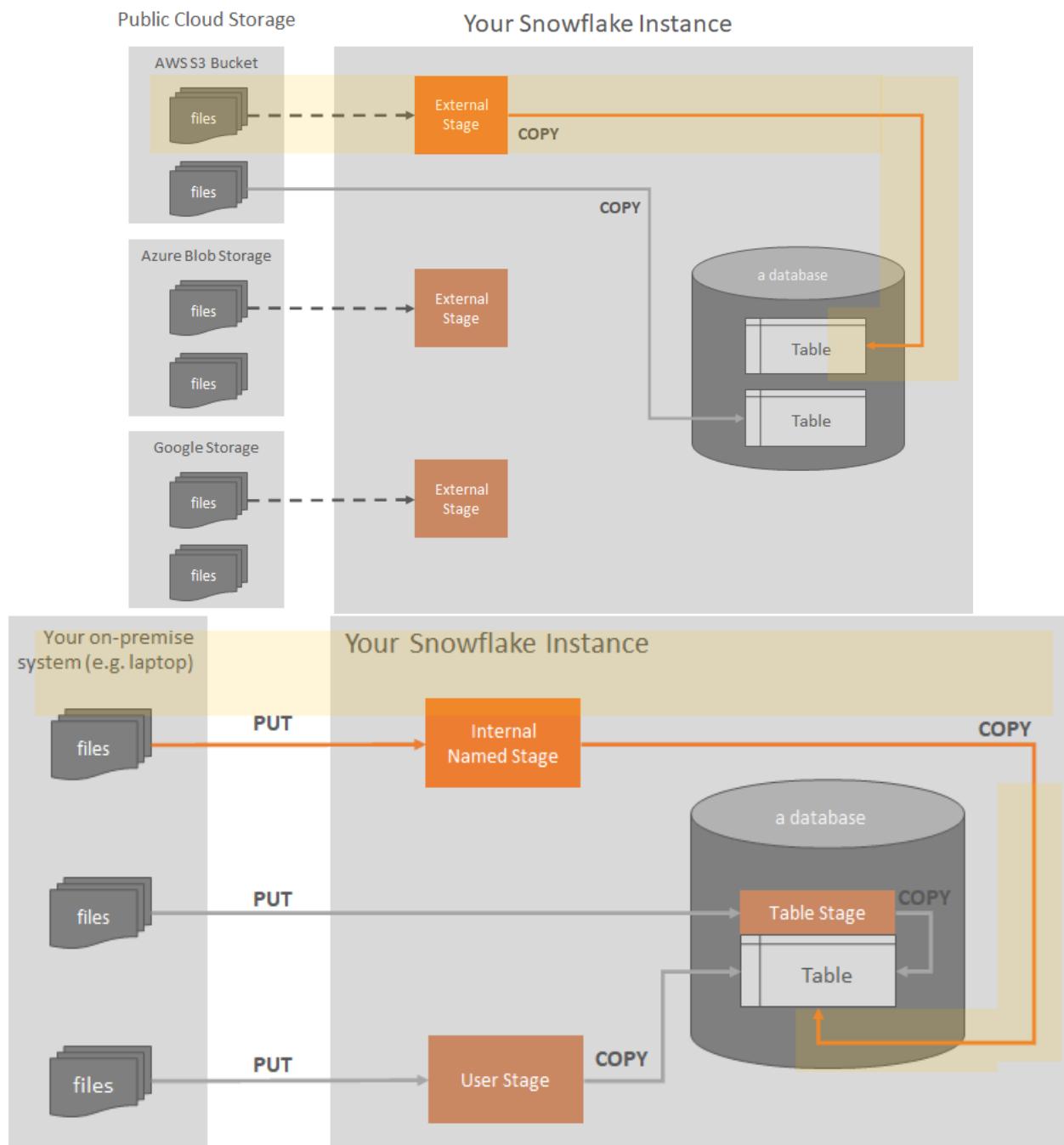
Your Snowflake Instance



Amazon Web Services



Row	name	size	md5
1	s3://snowflake-cookbook/ch3/r2/cc_info.csv	65974	5eec1827b8d77f62a5ccaedea04880d6



Row	name	size	md5 ↓
1	s3://snowflake-cookbook/ch3/r4/transactions.parquet	3929	aac8101db9d3de72231fb9f2d...

Row	\$1
1	{ "_COL_0": "2018-12-18", "_COL_1": 1649050999199, "_COL_2": 192224, "_COL_3": 97 }
2	{ "_COL_0": "2019-09-21", "_COL_1": 1648122211299, "_COL_2": 192248, "_COL_3": 59 }
3	{ "_COL_0": "2020-08-07", "_COL_1": 1672030807799, "_COL_2": 192272, "_COL_3": 86 }

```
{
  "data_set": "credit_cards",
  "extract_date": "2019-10-26",
  "credit_cards": [
    {
      "CreditCardNo": "527147 8139869068",
      "CreditCardHolder": "Alfreda Y. Meyers",
      "CardPin": "1634",
      "CardCVV": "929",
      "CardExpiry": "03/20"
    },
    {
      "CreditCardNo": "57705658951575987",
      "CreditCardHolder": "Libby I. Delaney",
      "CardPin": "7235",
      "CardCVV": "596",
      "CardExpiry": "03/20"
    },
    {
      "CreditCardNo": "6473 9323 3107 7122",
      "CreditCardHolder": "Libby T. Ray",
      "CardPin": "5143",
      "CardCVV": "994",
      "CardExpiry": "07/21"
    }
  ]
}
```

Row	name	size	md5
1	s3://snowflake-cookbook/ch3/r9/json_sample.json	33395	2b050d44a704

Row	PARSE_JSON(\$1)
1	{ "credit_cards": [{ "CardCVV": "929", "CardExpiry": "03/20", "CardPin": "1634", "CreditCardHolder": "Alfreda Y. Meyers", "CreditCardNo": "527147 8139869068" }, { "CardCVV": "596", "CardExpiry": "03/20", "CardPin": "7235", "CreditCardHolder": "Libby I. Delaney", "CreditCardNo": "57705658951575987" }, { "CardCVV": "994", "CardExpiry": "07/21", "CardPin": "5143", "CreditCardHolder": "Libby T. Ray", "CreditCardNo": "6473 9323 3107 7122" }] }

✓ [Query ID](#) [SQL](#) 177ms  200 rows

Filter result... [Download](#) [Copy](#) [Columns ▾](#)

Row	MY_JSON_DATA:EXTRACT	VALUE:CREDITCARDNO::	VALUE:CREDITCARDHOL	VALUE:CARDPIN::INTEGE	VALUE:CARDCVV::STRIN	VALUE:CARDEXPIRY::STR
1	"2019-10-26"	527147 8139869068	Alfreda Y. Meyers	1634	929	03/20
2	"2019-10-26"	57705658951575987	Libby I. Delaney	7235	596	03/20
3	"2019-10-26"	6473 9323 3107 7122	Libby T. Ray	5143	994	07/21

Row	name	size	md5
1	s3://snowflake-cookbook/ch3/r6/ndjson_sample.json	14834	b681bffd8a60752d9446d6ea02d172c8

Row	PARSE_JSON(\$1) ↓
1	{ "CardCVV": "979", "CardExpiry": "10/2020", "CardPin": "6609", "CreditCardHolder": "Price M. Cochran", "CreditCardNo": "36526505572729" }
2	{ "CardCVV": "197", "CardExpiry": "09/2019", "CardPin": "6954", "CreditCardHolder": "Daquan I. Sullivan", "CreditCardNo": "646 22682 40124 108" }
3	{ "CardCVV": "647", "CardExpiry": "11/2020", "CardPin": "8186", "CreditCardHolder": "Violet Y. Perkins", "CreditCardNo": "36118819196153" }
4	{ "CardCVV": "316", "CardExpiry": "09/2019", "CardPin": "8710", "CreditCardHolder": "Kerry L. Sandoval", "CreditCardNo": "512 62701 88375 080" }

Row	CREDITCARDNO	CREDITCARDHOLDER	CARDPIN	CARDEXPIRY	CARDCVV
1	36526505572729	Price M. Cochran	6609	10/2020	979
2	646 22682 40124 108	Daquan I. Sullivan	6954	09/2019	197
3	36118819196153	Violet Y. Perkins	8186	11/2020	647
4	512 62701 88375 080	Kerry L. Sandoval	8710	09/2019	316

name	database_name	schema_name	definition	owner	notification_channel
TX_LD_PIPE	SP_EX	PUBLIC	COPY INTO ...	SYSADMIN	arn:aws:sqs:ap-southeast-2:708014598823:sf-...

Events

+ Add notification Delete Edit

Name	Events	Filter	Type
0 Active notifications			

Cancel Save

New event

Name i

Events i

<input type="checkbox"/> PUT	<input type="checkbox"/> All object delete events
<input type="checkbox"/> POST	<input type="checkbox"/> Restore initiated
<input type="checkbox"/> COPY	<input type="checkbox"/> Restore completed
<input type="checkbox"/> Multipart upload completed	<input type="checkbox"/> Replication time missed threshold
<input checked="" type="checkbox"/> All object create events	<input type="checkbox"/> Replication time completed after threshold
<input type="checkbox"/> Object in RRS lost	<input type="checkbox"/> Replication time not tracked
<input type="checkbox"/> Permanently deleted	<input type="checkbox"/> Replication failed
<input type="checkbox"/> Delete marker created	

Prefix i

Suffix i

Send to i

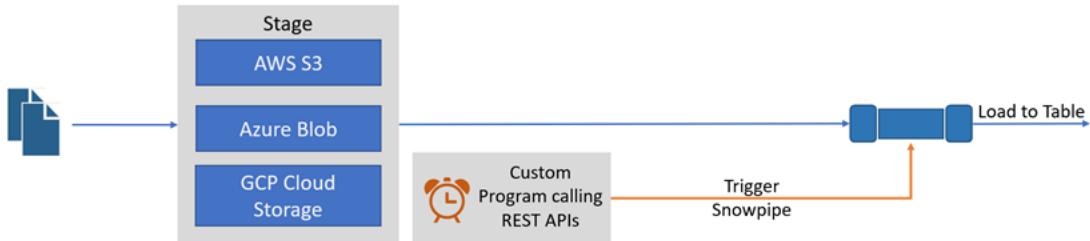
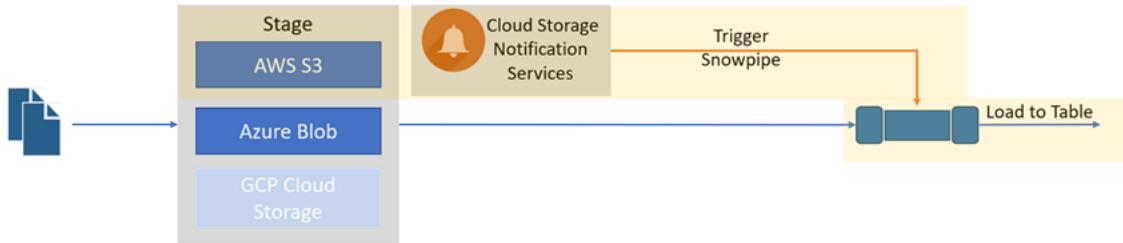
SQS Queue

SQS

Add SQS queue ARN

SQS queue ARN

arn:aws:sqs:ap-southeast-2:180639727342:sf-snowpipe-AIDASUDXXP3XE



Row	name	size
1	export_internal_stg/customer.csv.gz_0_0.csv	4847904
2	export_internal_stg/customer.csv.gz_0_1_0.csv	9733520
3	export_internal_stg/customer.csv.gz_0_2_0.csv	4866096
4	export_internal_stg/customer.csv.gz_0_3_0.csv	4846704

<input type="checkbox"/> Name ▾
<input type="checkbox"/>  customer.parquet_0_0_0.snappy.parquet
<input type="checkbox"/>  customer.parquet_0_1_0.snappy.parquet
<input type="checkbox"/>  customer.parquet_0_3_0.snappy.parquet

Chapter 4: Building Data Pipelines in Snowflake

Row	C_NAME	SUM(L_EXTENDEDPRICE)	SUM(L_TAX)
1	Customer#000052858	2593511.11	2.55
2	Customer#000090793	2525706.08	2.57
3	Customer#000132863	1643014.32	1.78

created_on	name	id	databas...	schema_name	owner	
2021-02-15 02:15:0...	REFRESH_ORDERING_CUSTOMERS	019a4e07-5...	TASK_DEMO	PUBLIC	SYSADMIN	
comment	warehouse	schedule	predecessors	state	definition ↓	condition
Update Ordering...	COMPUTE_...	30 MINUTE	NULL	suspended	INSERT INTO ordering_customers	NULL

comment	warehouse	schedule	predecessors	state	definition	condition
Update Orde...	COMPUTE_...	30 MINUTE	NULL	started	INSERT INT...	NULL

NAME	STATE	COMPLETED_TIME	SCHEDULED_TIME	ERROR_CODE	ERROR_MESSAGE
REFRESH_ORDERING_CUSTOMERS	SCHEDULED	NULL	2021-02-15 02:48:3...	NULL	NULL
NAME	STATE	COMPLETED_TIME	SCHEDULED_TIME	ERROR_CODE	ERROR_MESSAGE
REFRESH_ORDERING_CU...	SCHEDULED	NULL	2021-02-15 03:18:36.406 -0800	NULL	NULL
REFRESH_ORDERING_CU...	SUCCEEDED	2021-02-15 02:48:53.693 -0800	2021-02-15 02:48:36.406 -0800	NULL	NULL

✓ [Query ID](#) [SQL](#) 867ms  99,996 rows

Row	REPORTING_TIME	CUSTOMER_NAME	REVENUE	TAX
1	2021-02-15 02:48:50.740	Customer#000009883	1501315.56	1.73
2	2021-02-15 02:48:50.740	Customer#000061001	966905.86	1.34
3	2021-02-15 02:48:50.740	Customer#000073957	1577889.21	1.22
4	2021-02-15 02:48:50.740	Customer#000036964	1988282.69	2.26

\

Row	C_NAME	SUM(L_EXTENDEDPRICE)	SUM(L_TAX)
1	Customer#000052858	2593511.11	2.55
2	Customer#000090793	2525706.08	2.57
3	Customer#000132863	1643014.32	1.78

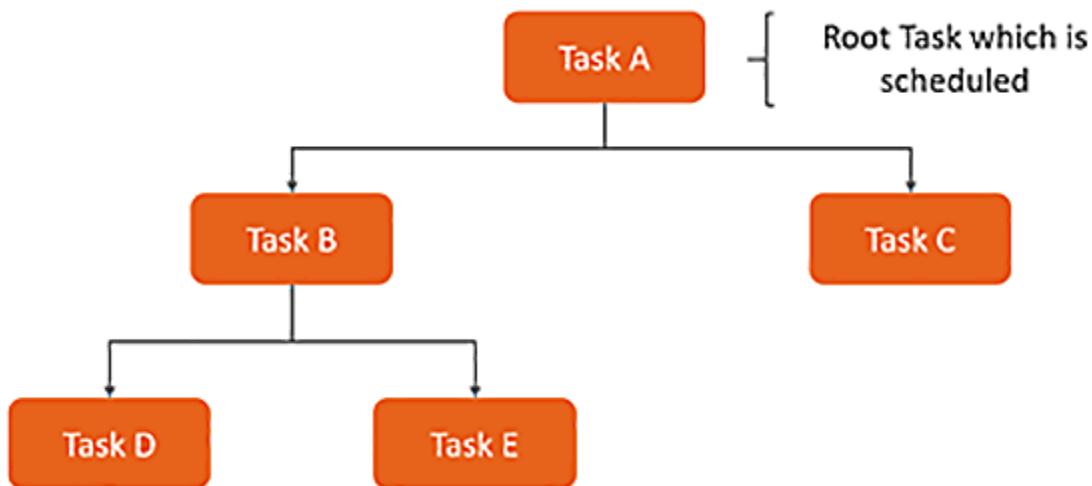
schedule	predecessors	state	definition	condition
NULL	TASK_DEMO.PUBLIC.CLEAR_ORDERING_CUSTOMERS	suspended	INSERT INT...	NULL

NAME		STATE	COMPLETED_TIME	SCHEDULED_TIME	ERROR_CODE	ERROR_MESSAGE
CLEAR_ORDERING_CUSTOMERS		SCHEDULED	NULL	2021-02-15 03:13:41.555 -0800	NULL	NULL
Row	NAME	STATE	COMPLETED_TIME	SCHEDULED_TIME	ERROR_CODE	ERROR_MESSAGE
1	CLEAR_ORDERING_CUSTOMERS	SCHEDULED	NULL	2021-02-15 03:47:53.14...	NULL	NULL
2	INSERT_ORDERING_CUSTOMERS	SUCCEEDED	2021-02-15 03:38:19.6...	2021-02-15 03:38:09.9...	NULL	NULL
3	CLEAR_ORDERING_CUSTOMERS	SUCCEEDED	2021-02-15 03:38:09.9...	2021-02-15 03:37:53.14...	NULL	NULL

✓ [Query_ID](#) [SQL](#) 80ms  99,996 rows

[Filter result...](#) [!\[\]\(449d4342bb0c044e1aa7eabb05522494_img.jpg\)](#) [Copy](#) [Columns ▾](#) [!\[\]\(03c4e08140778d6b43c8591a0b0a8be8_img.jpg\)](#)

Row	CUSTOMER_NAME	REVENUE	TAX
1	Customer#000032780	2950270.06	2.85
2	Customer#000004583	1574211.80	1.91
3	Customer#000064820	1476689.05	1.55
4	Customer#000017324	1166041.96	1.29



Row	QUERY_ID	NAME	DATABASE_NAME	SCHEMA_NAME	QUERY_TEXT	CONDITION_TEXT	STATE		
1	019a4e28-0...	REFRESH_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	INSERT INTO orde...	NULL	SUCCEEDED		
ERROR_CODE	ERROR_MESSAGE	SCHEDULED_TILL	QUERY_START_TIME	NEXT_SCHEDULED_TILL	COMPLETED_TILL	ROOT_TASK_ID	GRAPH_VERSION	RUN_ID	RETURN_VALUE
NULL	NULL	2021-02-15 ...	2021-02-15 ...	2021-02-15 ...	2021-02-15 ...	019a4e07-5...	1	1613386116...	NULL
NULL	NULL	2021-02-15 ...	2021-02-15 ...	2021-02-15 ...	2021-02-15 ...	019a4e35-f7...	1	1613387621...	NULL
002020	SQL compil...	2021-02-15 ...	2021-02-15 ...	NULL	2021-02-15 ...	019a4e35-f7...	1	1613387621...	NULL

QUERY_ID	NAME	DATABASE_NAME	SCHEMA_NAME	QUERY_TEXT	CONDITION_TEXT	STATE	ERROR_CODE
019a4e5a-0...	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SUCCEEDED	NULL
019a4e5a-0...	INSERT_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	INSERT INT...	NULL	SUCCEEDED	NULL

QUERY_ID	NAME	DATABASE_NAME	SCHEMA_NAME	QUERY_TEXT	CONDITION_TEXT	STATE
019a4e5a-0...	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SUCCEEDED
019a4e5a-0...	INSERT_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	INSERT INT...	NULL	SUCCEEDED
019a4e64-0...	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SUCCEEDED
019a4e64-0...	INSERT_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	INSERT INT...	NULL	SUCCEEDED
NULL	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SCHEDULED

Row	QUERY_ID	NAME	DATABASE_NAME	SCHEMA_NAME	QUERY_TEXT	CONDITION_TEXT	STATE
1	019a4e41-0...	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SUCCEEDED
2	NULL	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	FAILED
3	019a4e50-0...	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SUCCEEDED
4	019a4e5a-0...	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SUCCEEDED
5	019a4e64-0...	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SUCCEEDED
6	NULL	CLEAR_ORDERING_CUSTOMERS	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SCHEDULED

Row	QUERY_ID	NAME	DATABASE_NAME	SCHEMA_NAME	QUERY_TEXT	CONDITION_TEXT ↓	STATE
1	019a4e64-0...	CLEAR_ORD...	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SUCCEEDED
2	NULL	CLEAR_ORD...	TASK_DEMO	PUBLIC	DELETE FRO...	NULL	SCHEDULED

created_on	name	database_name ↓	schema_name	owner	comment	table_name	type	stale	mode
2021-02-15 ...	CUSTOMER_CHANGES	STREAM_DEMO	PUBLIC	ACCOUNTA...		STREAM_DE...	DELTA	false	DEFAULT

Row	ID	NAME	STATE	COUNTRY
1	1	Jane Doe	NSW	AU
2	2	Alpha	VIC	AU

Row	ID	NAME	STATE	COUNTRY	METADATA\$ACT	METADATA\$ISUP	METADATA\$ROW
1	1	Jane Doe	NSW	AU	INSERT	FALSE	546c1da8c5e...
2	2	Alpha	VIC	AU	INSERT	FALSE	562a8a2d053...

Row	ID	NAME	STATE	COUNTRY
1	1	Jane Doe	NSW	AU
2	2	Alpha	VIC	AU

Results Data Preview [Open History](#)

✓ [Query ID](#) [SQL](#)

121ms

0 rows

Filter result...



Copy

Columns

Row	ID	NAME	STATE	COUNTRY	METADATA\$ACT
-----	----	------	-------	---------	---------------

number of rows updated

number of multi-joined rows updated

1

0

ID	NAME	STATE	COUNTRY	METADATA\$ACTION	METADATA\$ISU	METADATA\$ROW
1	John Smith	NSW	AU	INSERT	TRUE	546c1da8c5e...
1	Jane Doe	NSW	AU	DELETE	TRUE	546c1da8c5...

name	database_name	schema_name	owner	comment	table_name	type	stale	mode
CUSTOMER_...	STREAM_DE...	PUBLIC	SYSADMIN		STREAM_DE...	DELTA	false	APPEND_ONLY

Results Data Preview

✓ [Query ID](#) [SQL](#)

66ms

0 rows

ID	NAME	STATE	COUNTRY	METADATA\$ACT	METADATA\$ISUP	METADATA\$ROW
2	Alpha	VIC	AU	INSERT	FALSE	c9801d993af...
1	Jane Doe	NSW	AU	INSERT	FALSE	49e84564a18...

ID	NAME	STATE	COUNTRY
2	Alpha	VIC	AU
1	Jane Doe	NSW	AU

QUERY_ID	NAME	DATABASE_NAME	SCHEMA_NAME	QUERY_TEXT	CONDITION_TYPE	STATE	ERROR_CODE	ERROR_MESSAGE	SCHEDULED_TIME
NULL	PROCESS_NAME	STREAM_DE	PUBLIC	INSERT INTO	NULL	SCHEDULED	NULL	NULL	2021-02-15 04...
019a4e7d-0...	PROCESS_NAME	STREAM_DE	PUBLIC	INSERT INTO	NULL	SUCCEEDED	NULL	NULL	2021-02-15 04...

ID	NAME	STATE ↓	COUNTRY
4	Tango	NT	AU
2	Alpha	VIC	AU
1	Jane Doe	NSW	AU
3	Mike	ACT	AU

INPUT	TO_NUMBER(INPUT)	TO_NUMBER(INPUT, 12, 2)
100.2	100	100.20

Numeric value 'not a number' is not recognized

Row	INPUT	TRY_TO_NUMBER(INPUT)
1	not a number	NULL

INPUT	TRY_TO_NUMBER(INPUT)
100.2	100

TO_BOOLEAN('TRUE')	TO_BOOLEAN('TRUE')	TO_BOOLEAN('TRUE')	TO_BOOLEAN('T')	TO_BOOLEAN('YES')	TO_BOOLEAN('ON')	TO_BOOLEAN('1')
TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE

TO_BOOLEAN('FALSE')	TO_BOOLEAN('FALSE')	TO_BOOLEAN('FALSE')	TO_BOOLEAN('F')	TO_BOOLEAN('NO')	TO_BOOLEAN('OFF')	TO_BOOLEAN('0')
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE

TO_DATE('2020-08-15')	DATE('2020-08-15')	TO_DATE('15/08/2020','DD/MM/YYYY')
2020-08-15	2020-08-15	2020-08-15

TO_TIMESTAMP_NTZ ('2020-08-15')	TO_TIMESTAMP_NTZ ('2020-08-15 14:30:50')
2020-08-15 00:00:00.000	2020-08-15 14:30:50.000

List of data type functions in Snowflake (excluding the TRY_ variant of these functions)			
TO_CHAR	TO_VARCHAR		
TO_BINARY	TO_VARIANT		
TO_DECIMAL	TO_NUMBER	TO_NUMERIC	TO_DOUBLE
TO_BOOLEAN			
TO_DATE	DATE	TO_TIME	TIME
TO_TIME	TO_TIME	TO_TIMESTAMP	TO_TIMESTAMP_*
TO_GEOGRAPHY	ST_GEOGFROMGEOHASH	ST_GEOGRAPHYFROMWKB	ST_GEOGRAPHYFROMWKT

CURRENT_DATE()

2020-08-15

CURRENT_REGION()

AWS_AP_SOUTHEAST_2

CURRENT_ROLE()

SYSADMIN

General Context	Session Context	Session Context Object
CURRENT_CLIENT	CURRENT_ACCOUNT	CURRENT_DATABASE
CURRENT_DATE	CURRENT_ROLE	CURRENT_SCHEMA
CURRENT_REGION	CURRENT_SESSION	CURRENT_SCHEMAS
CURRENT_TIME	CURRENT_STATEMENT	CURRENT_WAREHOUSE
CURRENT_TIMESTAMP	CURRENT_TRANSACTION	INVOKER_ROLE
CURRENT_VERSION	CURRENT_USER	INVOKER_SHARE
LOCALTIME	LAST_QUERY_ID	IS_GRANTED_TO_INVOKER_ROLE
LOCALTIMESTAMP	LAST_TRANSACTION	IS_ROLE_IN_SESSION
SYSDATE		

Chapter 5: Data Protection and Security in Snowflake

Results [Data Preview](#)

[Query ID](#) [SQL](#)

20ms

SQL compilation error: Object does not exist, or operation cannot be performed.

status

Role DEV_DBA successfully created.

55ms 0 rows

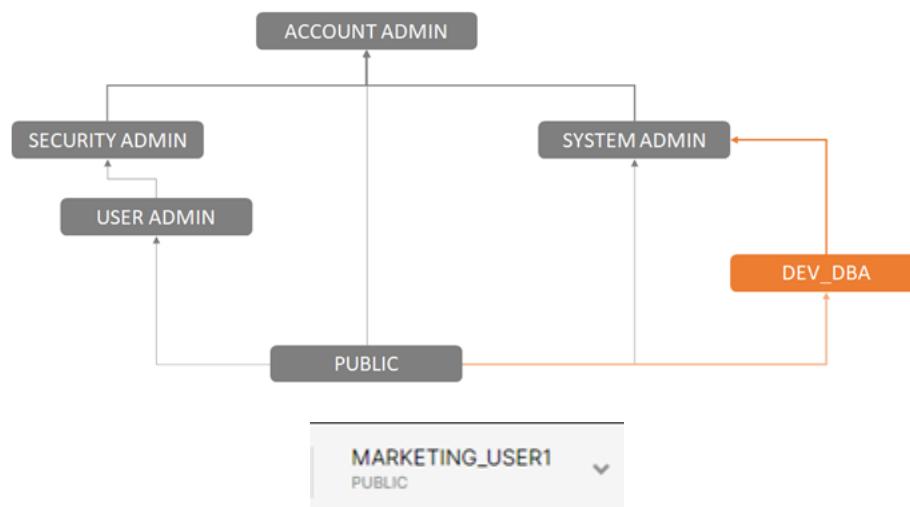


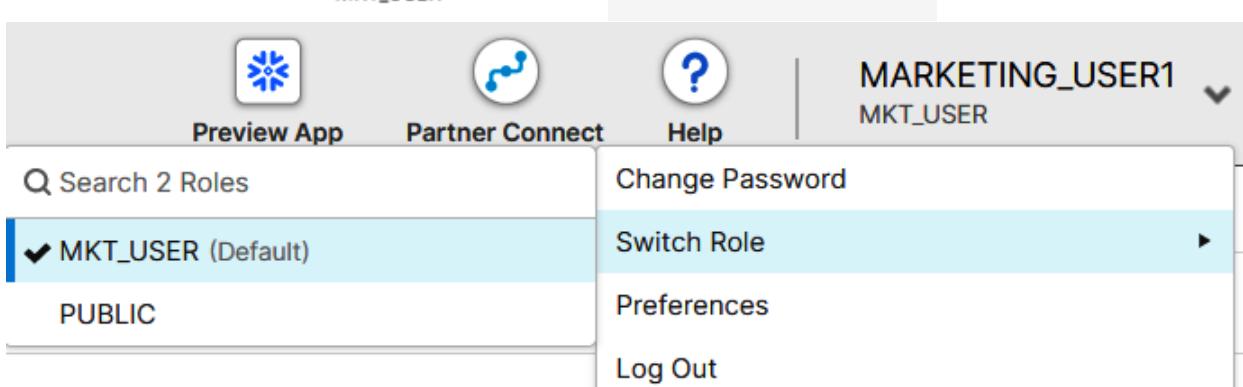
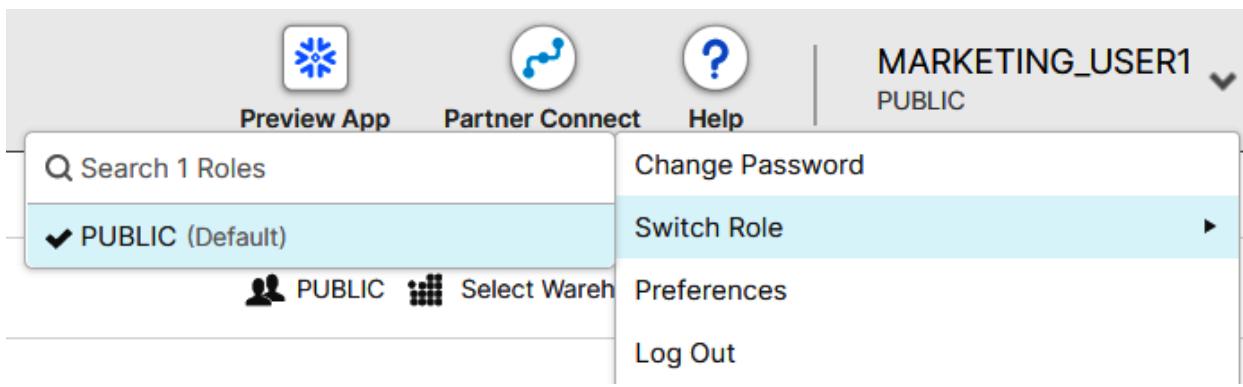
Copy

Columns ▾ ↗

created_on	privilege	granted_on	name	granted_to	grantee_name	grant_option	granted_by
------------	-----------	------------	------	------------	--------------	--------------	------------

created_on	privilege	granted_on	name	granted_to	grantee_name	grant_option	granted_by
2021-02-07 02:43:0...	CREATE SCHEMA	DATABASE	DEV	ROLE	DEV_DBA	false	SYSADMIN
2021-02-07 02:43:0...	MODIFY	DATABASE	DEV	ROLE	DEV_DBA	false	SYSADMIN
2021-02-07 02:43:0...	MONITOR	DATABASE	DEV	ROLE	DEV_DBA	false	SYSADMIN
2021-02-07 02:43:0...	REFERENCE_USAGE	DATABASE	DEV	ROLE	DEV_DBA	false	SYSADMIN
2021-02-07 02:43:0...	USAGE	DATABASE	DEV	ROLE	DEV_DBA	false	SYSADMIN
2021-02-07 02:43:0...	ADD SEARCH OPTI...	SCHEMA	DEV.PUBLIC	ROLE	DEV_DBA	false	SYSADMIN





1

Current Role = Role specified in the connection

2

Role not specified in the connection then
Current Role = Default Role of the User

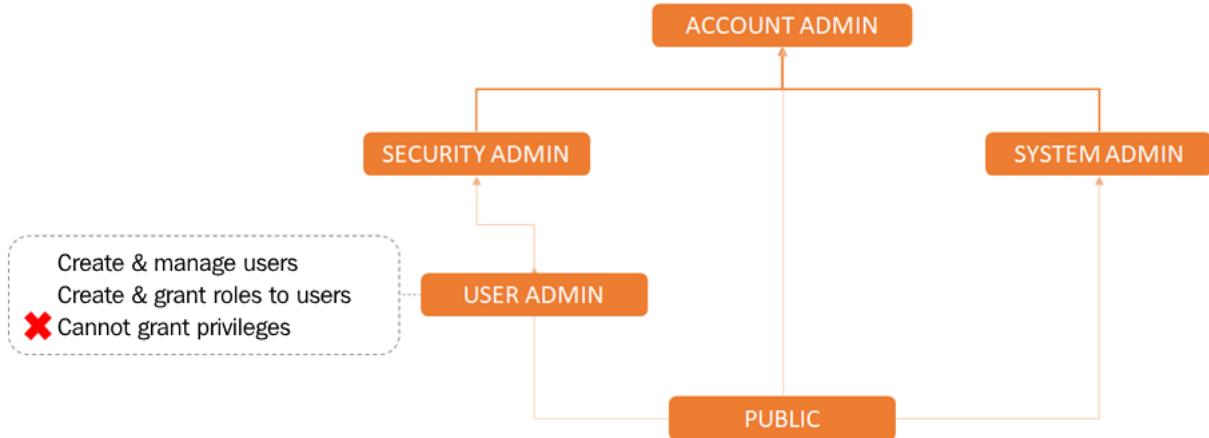
3

User has no default role then
Current Role = PUBLIC

CURRENT_ROLE()

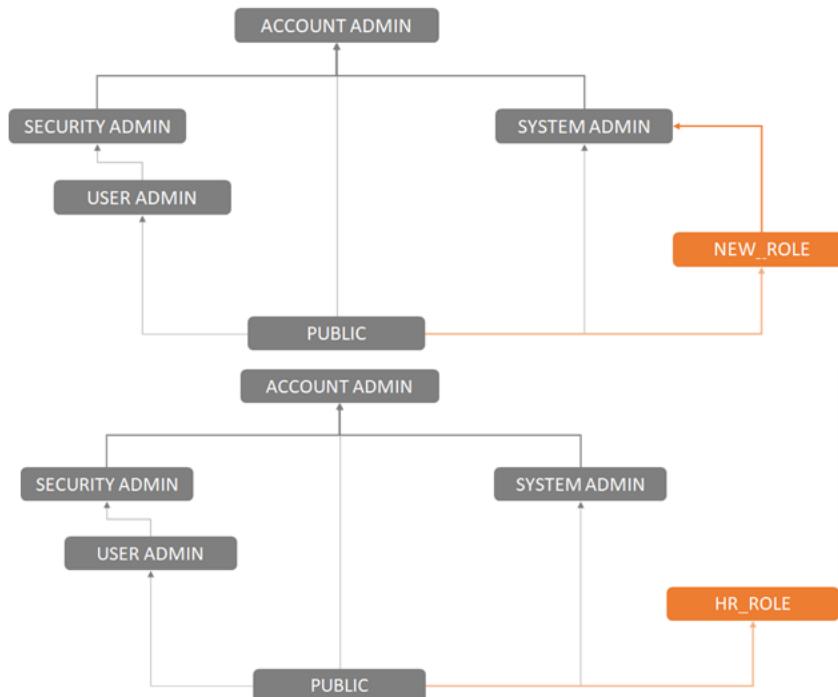
USERADMIN

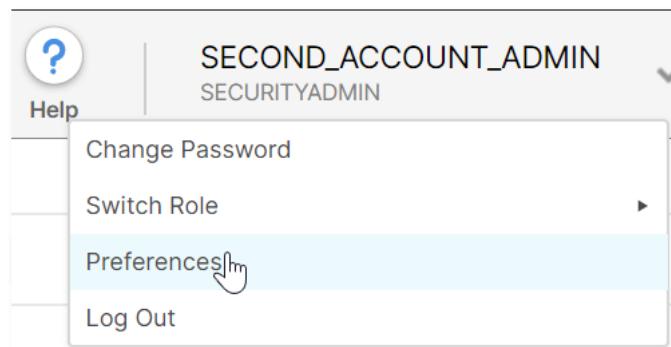
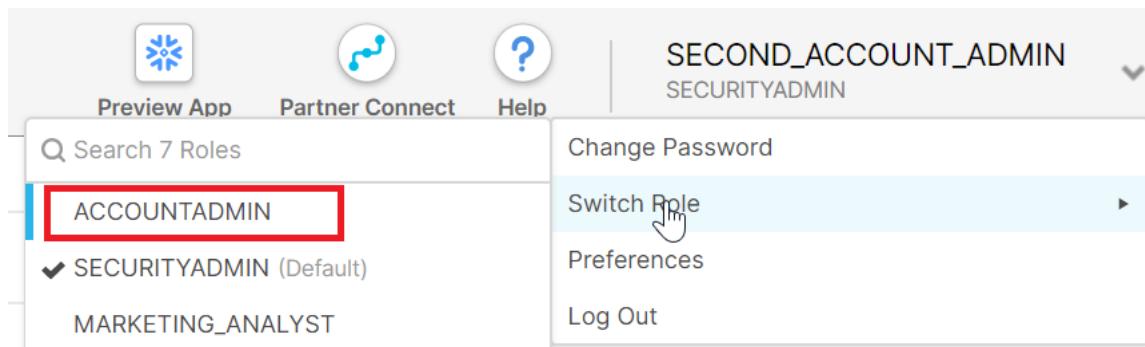
SQL compilation error: Database 'TEST_DATABASE' does not exist or not authorized.



SQL compilation error: Database 'SENSITIVE_DATA' does not exist or not authorized.

SQL access control error: Insufficient privileges to operate on table 'SALARY'





Multi-factor Authentication

Enroll in MFA, edit the phone number associated with your MFA account.

Status Not Enrolled [Enroll in MFA](#)

Phone -



[What is this? ↗](#)

[Need help?](#)

Powered by Duo Security

Protect Your Snowflake (AWS US East1) Account

Two-factor authentication enhances the security of your account by using a secondary device to verify your identity. This prevents anyone but you from accessing your account, even if they know your password.

This process will help you set up your account with this added layer of security.

[Start setup](#)



[What is this? ↗](#)

[Need help?](#)

Powered by Duo Security

What type of device are you adding?

Mobile phone RECOMMENDED

Tablet (iPad, Nexus 7, etc.)

Landline

[Continue](#)



[What is this? ↗](#)

[Need help?](#)

Powered by Duo Security

Enter your phone number

Australia

+61

Example: (4) 1234 5678

You entered Is this the correct number?

[Back](#)

[Continue](#)



[What is this? ↗](#)

[Need help?](#)

Powered by Duo Security

What type of phone is +61 [REDACTED]

- iPhone
- Android
- Windows Phone
- Other (and cell phones)

[Back](#)

[Continue](#)



[What is this? ↗](#)

[Need help?](#)

Powered by Duo Security

Verify Ownership of +61 [REDACTED]

1. We can call or text you with a verification code.

[Call me](#)

or

[Text me](#)

Text sent

2. Enter your 6-digit code:

706441

[Verify](#)



[Back](#)

[Continue](#)

DUO

What is this? Need help?

Powered by Duo Security

Install Duo Mobile for Android



1. Launch the Google Play Store app and search for "Duo Mobile".
2. Tap "Install" to install the app.

[Back](#) [I have Duo Mobile installed](#)

DUO

[What is this?](#)

[Need help?](#)

Powered by Duo Security

Activate Duo Mobile for Android



1. Open Duo Mobile.
2. Tap the "+" button.
3. Scan this barcode.

[Email me an activation link instead.](#)

[Back](#) [Continue](#)

DUO

[What is this?](#)

[Need help?](#)

Powered by Duo Security

Activate Duo Mobile for Android



1. Open Duo Mobile.
2. Tap the "+" button.
3. Scan this barcode.

[Email me an activation link instead.](#)

[Back](#) [Continue](#)



[What is this? ↗](#)

[Need help?](#)

Powered by Duo Security

My Settings & Devices



Android +61 [REDACTED] JUST ADDED

Default Device: Android +61 [REDACTED]

When I log in: [Ask me to choose an authentication method](#) ↘

[Saved](#)

[Continue to Login](#)



[What is this? ↗](#)

[Need help?](#)

Powered by Duo Security

Choose an authentication method



Call Me

[Call Me](#)

ex. 867539

[Log In](#)

Your next SMS Passcode starts with 1

Enrollment successful! This is the Duo login prompt that you'll normally see when logging in. ✖

Pushed a login request to your device...

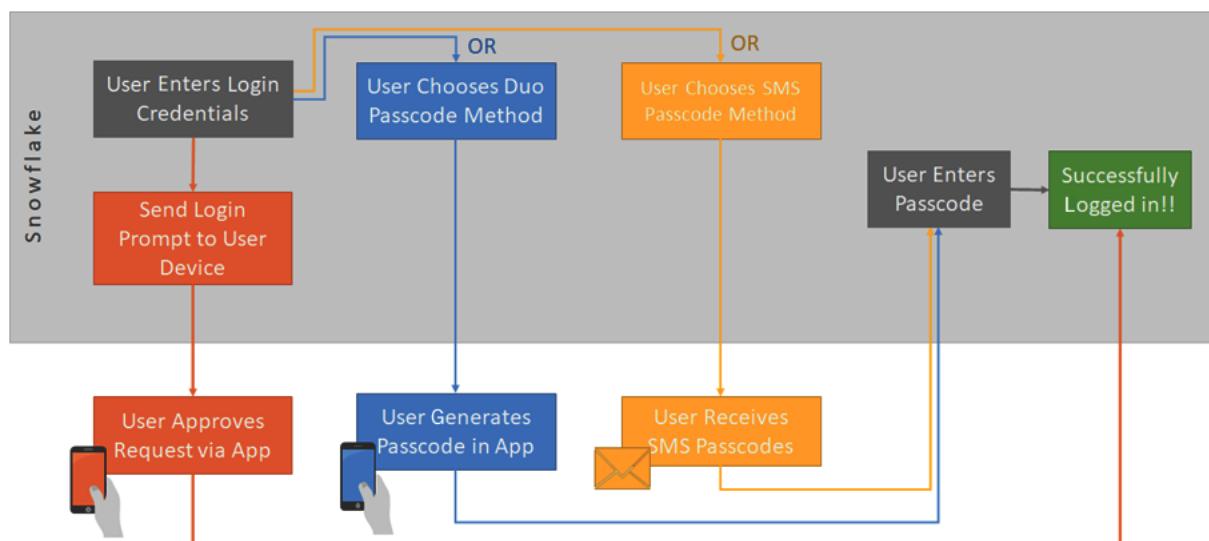
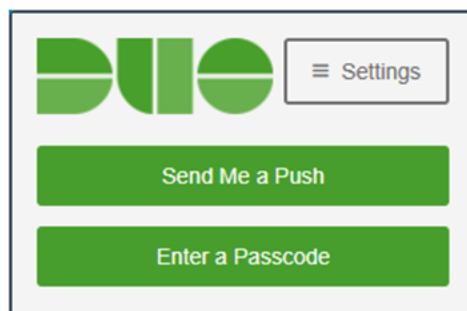
[Cancel](#)

Multi-factor Authentication

Enroll in MFA, edit the phone number associated with your MFA account.

Status Enrolled

Phone +6



Chapter 6: Performance and Cost Optimization

name	status	rows_parsed	rows_loaded
s3://snowflake-cookbook/ch6/r1/customers.csv	LOADED	200	200

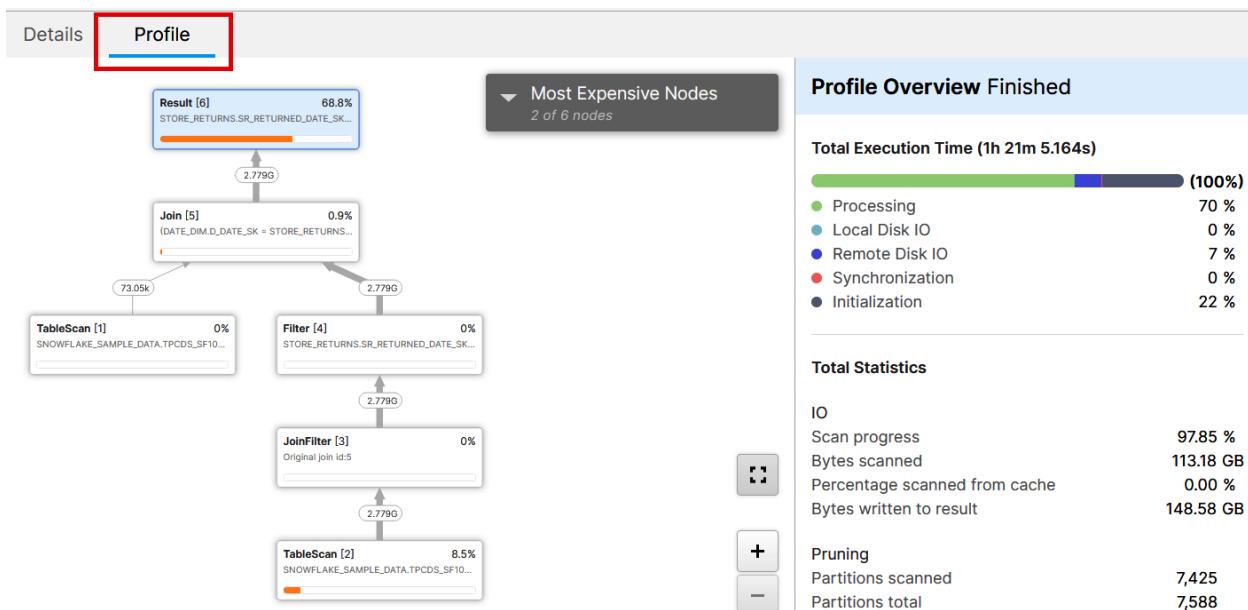
name	database_name	schema_name	kind	rows	bytes
CUSTOMER	C6_R6	PUBLIC	TABLE	200	12288

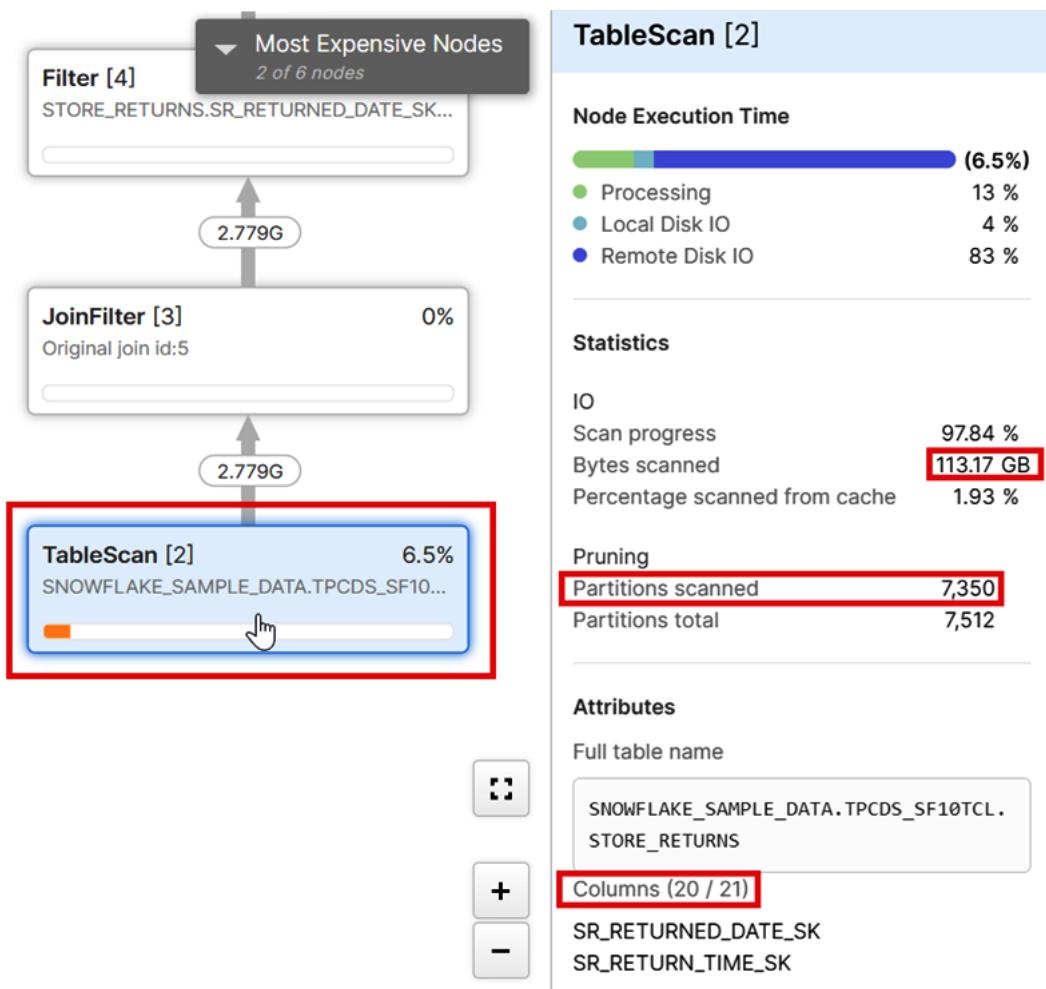
status	rows_parsed	rows_loaded
LOADED	200	200

name	database_name	schema_name	kind	comment	cluster_by	rows	bytes
CUSTOMER	C6_R1	PUBLIC	TABLE			200	13312
CUSTOMER_OPT	C6_R1	PUBLIC	TABLE			200	12288

Results Data Preview

Query ID SQL 30.04s
[Copy_ID](#) 01978bb0-064b-5f9d-0000-002bf8035459





Profile Overview Finished

Total Execution Time (13m 8.906s)



Total Statistics

IO

Pruning

Profile Overview Finished

Total Execution Time (4m 16.1s)

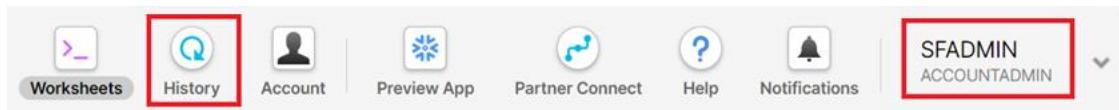


Total Statistics

IO

Pruning

Row	QUERY_ID	QUERY_TEXT	EXECUTION_TIME	USER_NAME
1	01978bc9-060a-695d-0000-002bf803f00d	SELECT * FROM store_returns,...	4913409	SFADMIN
2	01978bb0-064b-5f9d-0000-002bf8035459	SELECT d_year ,sr_customer_s...	982147	SFADMIN
3	019789ab-06f5-1342-0000-002bf8037379	select d_year ,sr_customer_sk a...	963414	SFADMIN
4	01978d1f-06ad-18ea-0000-002bf803a42d	SELECT d_year ,sr_customer_s...	788294	SFADMIN



History

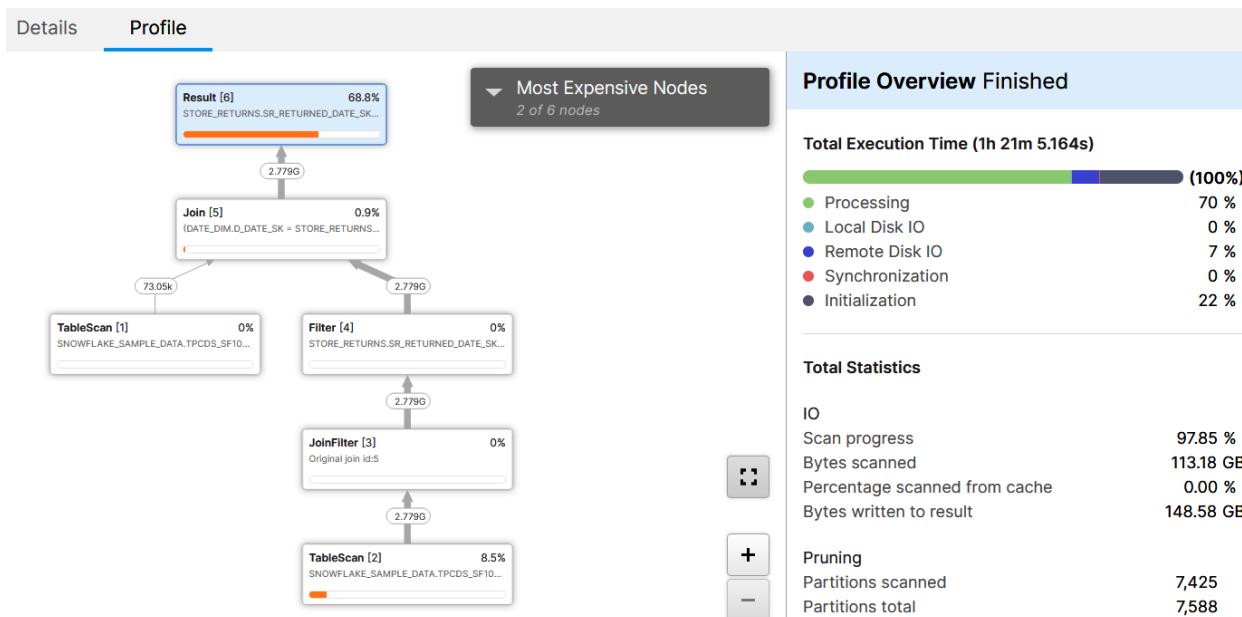
Last refreshed 10:09:12 PM Auto refresh

Display queries that meet all of the following criteria:

Query ID is 01978bc9-060a-695d-0000-002bf803f00d

Include client-generated statements
 Include queries executed by user tasks

Status	Query ID	SQL Text	User	Warehouse	Clust...	Size	Session ID	Start Time	End Time	Total Duration	Bytes Scanne...
✓	01978bc9-...	SELECT * FROM stor...	SFADMIN	COMPUTE...	1	X-Small	1888445890...	7:57:37 AM	9:19:31 AM	1h 21min 54s	113.2



Row	QUERY_TEXT	USER_NAME	PUESDO_QUERY_ID	NUM_OF_QUERIES	AGG_EXECUTION_TIME
1	SELECT * FROM store_ret...	SFADMIN	-7240879760976611795	1	4913409
2	SELECT d_year ,sr_customer...	SFADMIN	-1127835272904793187	6	982147
3	select d_year ,sr_customer...	SFADMIN	-3538599904687560836	1	963414

Row	QUERY_ID	QUERY_TEXT	USER_NAME	PUESDO_QUERY_ID
1	01978bad-0667-ff81-0000-002bf...	SELECT d_year ,sr_customer_sk as...	SFADMIN	-1127835272904793187
2	01978bad-066d-354f-0000-002b...	SELECT d_year ,sr_customer_sk as...	SFADMIN	-1127835272904793187
3	01978bb0-064b-5f9d-0000-002b...	SELECT d_year ,sr_customer_sk as...	SFADMIN	-1127835272904793187
4	01978bae-06e6-4669-0000-002...	SELECT d_year ,sr_customer_sk as...	SFADMIN	-1127835272904793187

number of rows inserted

689291

TABLE_CATALOG	TABLE_SCHEMA	TABLE_NAME	ID	CLONE_GROUP	IS_TRANSIENT	ACTIVE_BYTES	TIME_TRAVEL_B	FAILSAFE_BYTE
C6_R4	PUBLIC	ORDER_REPORTING	1026	1026	NO	5632	0	33792
C6_R4	PUBLIC	LINEITEM_INTERIM_PROCESSI...	4	4	YES	0	245316096	0

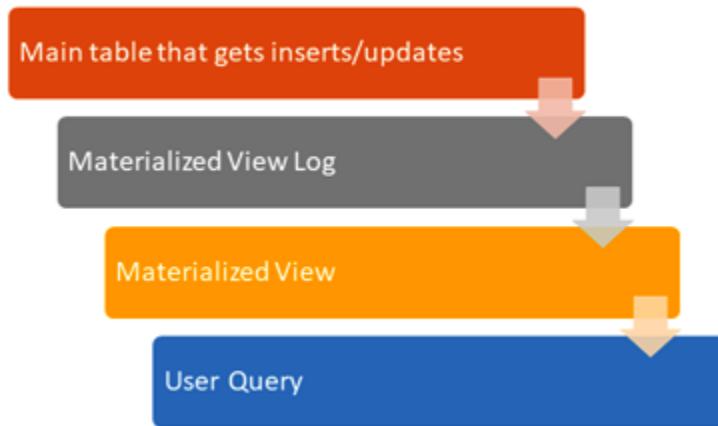
Results Data Preview			Results Data Preview			Results Data Preview		
✓ Query ID	SQL	542ms	✓ Query ID	SQL	19.3s	✓ Query ID	SQL	639ms
Filter result...	Copy	Columns	Filter result...	Copy	Columns	Filter result...	Copy	Columns
Row	CNT	MEAN_SENSOR_READING	Row	CNT	MEAN_SENSOR_READING	Row	CNT	MEAN_SENSOR_READING
1	1000001	49.510923	1	1001894	49.451239	1	1001894	49.451239

Main table that gets inserts/updates

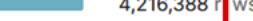
Materialized View Log

Materialized View

User Query



Results Data Preview

✓	Query_ID	SQL	29.28s	 4,216,388 rows
F	Copy_ID	01978ec0-0628-10a1-0000-002bf803e2ed		
	Row	TXN_ID	TXN_DATE	
1	1f9e4367-5511-48b4...		2020-10-07	

Profile Overview Finished

Total Execution Time (28.770s)



Total Statistics

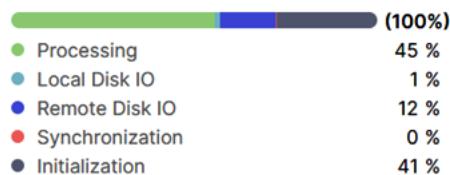
IO	
Scan progress	100.00 %
Bytes scanned	4.72 GB
Percentage scanned from cache	4.92 %
Bytes written to result	205.76 MB

Pruning

Partitions scanned	308
Partitions total	308

Profile Overview Finished

Total Execution Time (5.854s)



Total Statistics

IO

Scan progress	100.00 %
Bytes scanned	360.54 MB
Percentage scanned from cache	0.00 %
Bytes written to result	200.84 MB

Pruning

Partitions scanned **29**
Partitions total **308**

The screenshot shows the Snowflake interface with the following details:

- Header:** Shows the Snowflake logo, navigation icons (Databases, Shares, Data Marketplace, Warehouses, Worksheets, History), user HAMMAD (SYSADMIN), and a dropdown menu.
- Toolbar:** Includes New Worksheet, Run, All Queries, and session information (SYSADMIN, COMPUTE_WH (XS)).
- Left Sidebar:** Find database objects search bar, listing DEMO_DB, SNOWFLAKE_SAMPLE_DATA, and UTIL_DB.
- Worksheet Area:** A table with one row labeled "1".
- Bottom Navigation:** Results (selected), Data Preview, Open History.
- Message:** "Query results will appear here."

Open Worksheet

The dialog box has the following structure:

- Left Sidebar:** Personal (selected) and Tutorials tabs. The Tutorials tab lists:
 - Tutorial 1: Sample queries on TPC-H data
 - Tutorial 2: Sample queries on TPC-DS data
- Search Bar:** Search input field.
- Buttons:** Cancel and Open.

Snowflake Worksheet interface showing multiple queries and warehouse monitoring.

Top Worksheet:

```

138 -- TPC-DS_query4
139 with year_total as (
140     select c_customer_id customer_id
141         ,c_first_name customer_first_name
142         ,c_last_name customer_last_name
143         ,c_preferred_cust_flag customer_preferred_cust_flag
144         ,c_birth_country customer_birth_country
145         ,c_login customer_login
146         ,c_email_address customer_email_address
147         ,d_year dyear
148         ,sum(((ss_ext_list_price-ss_ext_wholesale_cost-ss_ext_discount_amt)+ss_ext_sales_price)/2) year_total
149         ,s` sale_type
150     from customer
151

```

Second Worksheet:

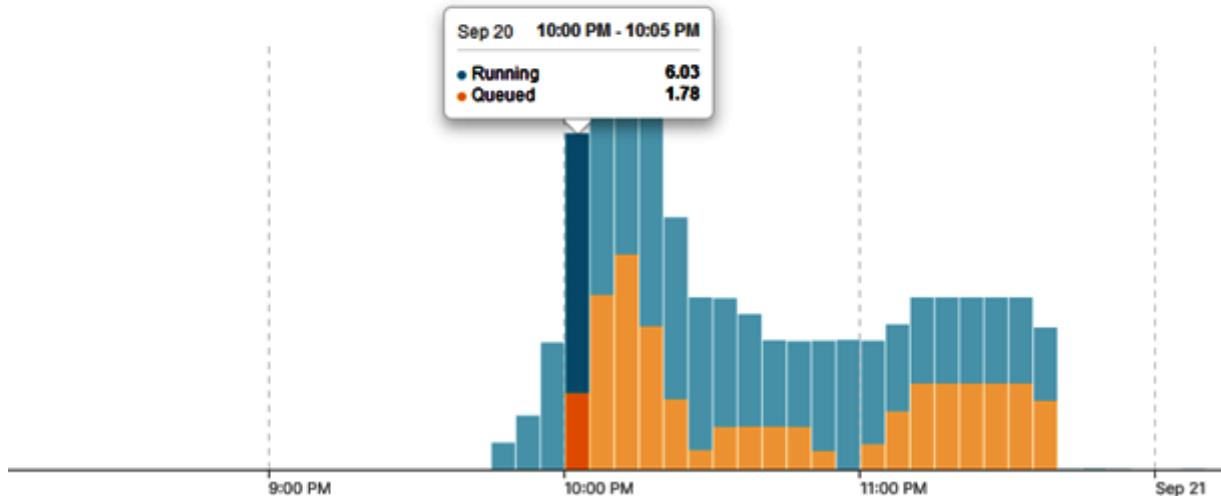
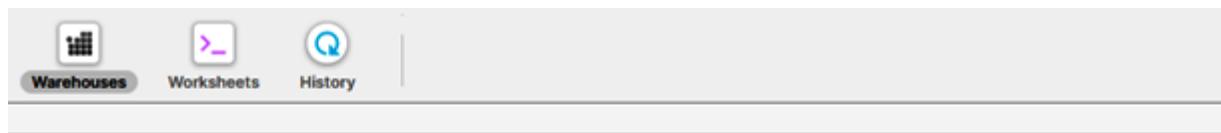
```

1 use schema snowflake_sample_data.tpcds_sf10tcl;
2 -- or -- use schema snowflake_sample_data.tpcds_sf100tcl;
3
4 -- TPC-DS_query1
5 with customer_total_return as
6 (select sr_customer_sk as ctr_customer_sk
7 ,sr_store_sk as ctr_store_sk
8 ,sum(SR_RETURN_AMT_INC_TAX) as ctr_total_return
9 from store_returns
10 ,date_dim
11 where sr_returned_date_sk = d_date_sk
12 and d_year =1999
13 group by sr_customer_sk
14 ,sr_store_sk)
15 select c_customer_id

```

Warehouse Load Over Time:

Date Range	Running Tasks	Queued Tasks
Sep 20 10:00 PM - 10:05 PM	6.03	1.78



Databases Shares Data Marketplace Warehouses Worksheets History COOKBOOK SYSADMIN

Last refreshed 7:49:13 PM Auto refresh

History Hide Filters View SQL Abort... Refresh

Display queries that meet all of the following criteria:

User COOKBOOK

Include client-generated statements
 Include queries executed by user tasks

Status	Query ID	SQL Text	User	Warehouse	Clust...	Size	Session ID	Start Time	End Time	Total Duration	Bytes Scanned
✓	019a3033...	with year_total as (s...	COOKBOOK	COMPUTE....	1	X-Small	1367969817	1:59:28 PM	4:34:14 PM	2h 34min 45s	268
✓	019a3034...	select case when (sel...	COOKBOOK	COMPUTE....	1	X-Small	1367969825	2:00:56 PM	3:37:55 PM	1h 36min 58s	3KB
✓	019a3032...	with wscs as (select ...	COOKBOOK	COMPUTE....	1	X-Small	1367973913	1:58:40 PM	2:38:19 PM	39min 39s	67.8GB
✓	019a3034...	select l_item_id, avg(...	COOKBOOK	COMPUTE....	1	X-Small	1367973921	2:00:23 PM	2:24:29 PM	24min 5s	68.5GB
✓	019a3035...	select cd_gender, cd...	COOKBOOK	COMPUTE....	1	X-Small	1367973929	2:01:16 PM	2:24:00 PM	22min 44s	8.1GB
✓	019a3034...	select s_store_name ,...	COOKBOOK	COMPUTE....	1	X-Small	1367973925	2:00:42 PM	2:17:54 PM	17min 11s	4.0GB



History

Show Filters View SQL Abort...

Displaying queries for user HAMMAD.

Status	Query ID	SQL Text
✓	0197190b-0042-6c5d-0000-0000425553f1	select case when (sel...
✓	0197190b-0011-9840-0000-000042554425	use schema snowflak...
✓	0197190b-00c8-f192-0000-0000425543e9	select s_store_name ,...
✓	0197190b-00b9-b36b-0000-0000425543e5	use schema snowflak...
✓	019718fd-0060-ba74-0000-000042555321	select i_item_id, avg(...
✓	019718fd-00a4-8e95-0000-000042554369	use schema snowflak...
✓	019718fc-00fb-52b4-0000-00004255433d	select a.ca_state stat...
✓	019718fc-0034-8268-0000-000042554339	use schema snowflak...
✓	019718fa-008c-f38b-0000-0000425542bd	with ssr as (select s...
✓	019718fa-00a6-4077-0000-0000425542b9	use schema snowflak...
Running	019718fa-003e-8c81-0000-0000425552ad	with year_total as (s...

History > 1:59:28 PM for 2h 34min 45s Last refreshed 7:53:16 PM Auto refresh

[Details](#) [Profile](#)

Status Success
User COOKBOOK
Warehouse COMPUTE_WH
Start Time 1:59:28 PM
End Time 4:34:14 PM
Total Duration 2h 34min 45s
Scanned Bytes 268.5GB
Rows 100
Query ID 019a3033-3231-6eea-0000-00005189f2cd
Session ID 1367969817

SQL Text

```
1 with year_total as (
2     select c_customer_id customer_id
3         ,c_first_name customer_first_name
4         ,c_last_name customer_last_name
5         ,c_preferred_cust_flag customer_preferred_cust_flag
6         ,c_birth_country customer_birth_country
7         ,c_login customer_login
8         ,c_email_address customer_email_address
9 )
10
11
12
13
14
15
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85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
```

[Select SQL](#)

Query Result

Results

row#	CUSTOMER_ID	CUSTOMER_FIRST_NA...	CUSTOMER_LAST_NA...	CUSTOMER_LOGIN
1	AAAAAAAAAAAAABA	Scott	Gordon	NULL
2	AAAAAAAAAAAAEBA	Donna	Barnes	NULL

100 rows produced [Export Result](#)

Chapter 7: Secure Data Sharing

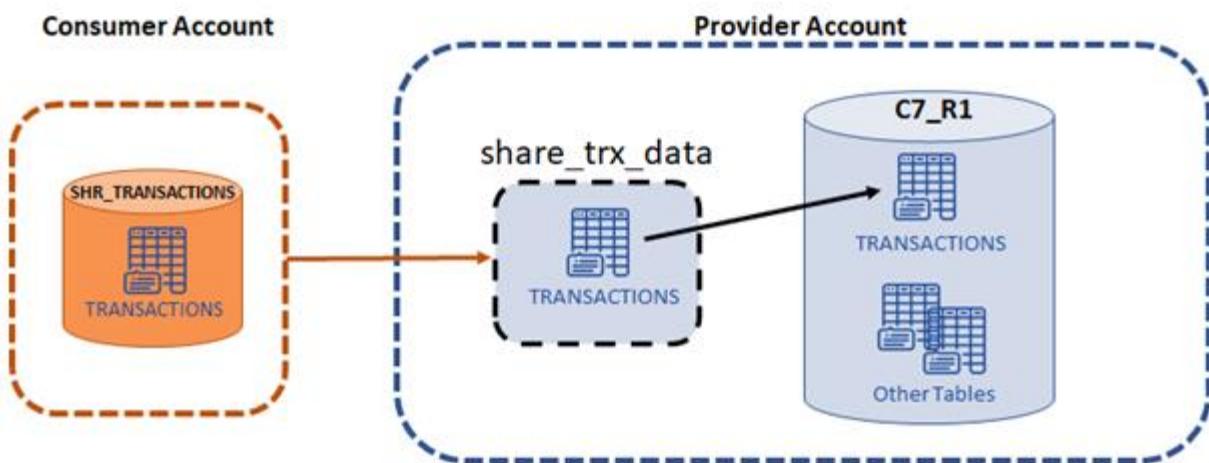
<https://drb98231.us-east-1.snowflakecomputing.com/>

↓ created_on	kind	name	database_name	to	owner
2021-02-07 02:1...	INBOUND	SHARE_TRX_DATA			
2019-09-18 16:4...	INBOUND	SNOWFLAKE.ACOUNT_USAGE	SNOWFLAKE		
2019-08-19 17:2...	INBOUND	SFC_SAMPLES.SAMPLE_DATA	SNOWFLAKE_SAMPLE_DATA		

kind	name	shared_on
DATABASE	<DB>	2020-10-29 12:47:17.559 -0700
SCHEMA	<DB>.PUBLIC	2020-10-29 12:47:18.008 -0700
TABLE	<DB>.PUBLIC.TRANSACTIONS	2020-10-29 12:47:22.056 -0700

kind	name	shared_on
DATABASE	SHR_TRANSACTIONS	2020-10-29 12:47:17.559 -0700
SCHEMA	SHR_TRANSACTIONS.PUBLIC	2020-10-29 12:47:18.008 -0700
TABLE	SHR_TRANSACTIONS.PUBLIC.TRANSA...	2020-10-29 12:47:22.056 -0700

TXN_ID	TXN_DATE	CUSTOMER_ID	QUANTITY	PRICE	COUNTRY_CD
ed58ec30-e033...	2019-12-16	385b7145-a53f-...	10	189.00	oJ
26764eb9-768d...	2020-03-25	bcc95cd8-e861...	1	149.00	a5
962427f1-510d...	2020-08-31	ce705904-6fe1...	2	93.00	EV



CUST_ID	CUST_NAME	CUST_ADDRESS
0	jdmQH5GA1J	LXAYxsldzqseAt1S30TXsc1Qx23n0lyptbXpKoNkbVJogatg5V
1	scCydZ9tl3	gCY89nx7pLYG9rwRSsIaxXLJkNexvnQ5DsWzSkwslu9XBI9IC
2	AHCRo5Vg9S	zhbDyr4Od3ZH2HPRdgCtHv5OTkZsKyeYlejnHJgtHkauzrO4RR

<https://drb98231.us-east-1.snowflakecomputing.com/>

kind	name	database_name
INBOUND	SHARE_CUST_DATA	
INBOUND	SFC_SAMPLES.SAMPLE_DATA	SNOWFLAKE_SAMPLE...
INBOUND	SNOWFLAKE.ACCOUNT_US...	SNOWFLAKE

kind	name ↓
DATABASE	<DB>
SCHEMA	<DB>.PUBLIC
VIEW	<DB>.PUBLIC.CUSTOMER_INFO

kind	name
DATABASE	SHR_CUSTOMER
SCHEMA	SHR_CUSTOMER.PUBLIC
VIEW	SHR_CUSTOMER.PUBLIC.CUSTOMER_INFO

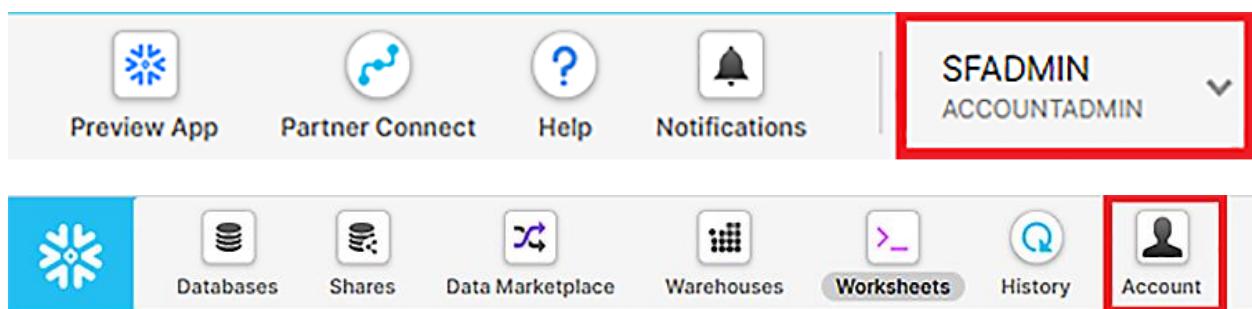
CUST_ID	CUST_NAME	CUST_ADDRESS
0	jdmQH5GA1J	LXAYxldzqseAt1S30TXsc1Qx23n0lyptbXpKoNkbVJogatg5V
1	scCydZ9tl3	gCY89nx7pLYG9rwRSslaxXLJkNexvnQ5DsWzSkwslu9XBI9IC
2	AHCRo5Vg9S	zhbDyr4Od3ZH2HPRdgCtHv5OTkZsKyeYlejnHJgtHkausrO4RR

<https://drb98231.us-east-1.snowflakecomputing.com/>

kind	name
DATABASE	C7_R3
SCHEMA	C7_R3.PUBLIC
TABLE	C7_R3.PUBLIC.CUSTOMER

kind	name
DATABASE	C7_R3
SCHEMA	C7_R3.PUBLIC
TABLE	C7_R3.PUBLIC.CUSTOMER

kind	name
DATABASE	C7_R3
SCHEMA	C7_R3.PUBLIC
TABLE	C7_R3.PUBLIC.CUSTOMER
TABLE	C7_R3.PUBLIC.CUSTOMER_ADDRESS



[Usage](#)[Billing](#)[Users](#)[Roles](#)[Policies](#)[Sessions](#)[Resource Monitors](#)[Reader Accounts](#)

Reader Accounts

Reader accounts enable providers to share data with consumers who are not already Snowflake customers, without requiring the consumers to have their own accounts.

[Create Reader Account](#)[Drop](#)

Create Reader Account



Reader Account Details

Provide a name for your new Reader account. The edition, region and cloud of your new Reader account will be the same as your current account.

Account Name Comments

Edition ENTERPRISE

Region US East (Virginia)

Admin Login Information

These are your reader account credentials, used to log in and manage the Reader account as the ACCOUNTADMIN role.

User Name Password [Show Password](#)Confirm Password [Show Password](#)[Show SQL](#)[Cancel](#)[Create Account](#)

Congratulations!



You have created a new reader account "TEST_R".

Account URL <https://lg09726.ap-southeast-2.snowflakecomputing.com>

Locator **LG09726**

What's next?

- [Visit the secure shares page](#) to create and provide access to your secure share.
- Once you are able to access your reader account, log in and ensure it's ready for your data consumers.

[Done](#)

Welcome to your reader account

Reader accounts allow you to prepare secure shares and explore shared data sets. To get started, tell us who you are:

[I'm a Data Provider](#) [I'm a Data Consumer](#)

[Dismiss](#)

Row	status
1	{"accountName": BE52113, "loginUrl": "https://be52113.ap-southeast-2.snowflakecomputing.com"}

SS_SOLD_DATE_SK	SS_NET_PROFIT
2451154	-928455.27

Row	status
1	{"accountName": CP15526, "loginUrl": "https://cp15526.ap-southeast-2.snowflakecomputing.com"}

Reader Databases Shares Data Marketplace Warehouses Worksheets History Account **1 READER ADMIN ACCOUNTADMIN** Preview App Help Notifications

Account

Billing & Usage Users Roles Policies Sessions **Resource Monitors 3**

Resource Monitors
Set limits on your account's credit consumption with Resource Monitors.
[Learn more](#)

Create a Resource Monitor 4

Create Resource Monitor

Name

Credit Quota The total credits allowed by this resource monitor

Monitor Level You can set the monitor at ACCOUNT or at a specific VIRTUAL WAREHOUSE level

Schedule Start monitoring immediately and reset monthly until [Customize](#) Interval after which the monitor will restart counting

Actions and Notifications
Specify what action to perform when quota is reached.

Stay up to date: Get notified when warehouses reach your action thresholds by turning on notifications in your [account preferences](#). X

Suspend and notify when % of credits is used. [?](#)

Suspend immediately and notify when % of credits is used. Suspend Immediately stops running queries and suspends

Notify when % of credits is used. [?](#)

[+Add more notification thresholds](#)

[Show SQL](#) Cancel Create

Customize Schedule

Time Zone Local

Starts Immediately Later

Resets Never Daily Weekly Monthly Yearly

Ends Never On

Cancel Set

Chapter 8: Back to the Future with Time Travel

C_CUSTOMER_	C_CUSTOMER_I	C_CURRENT_CD	C_CURRENT_HD	C_CURRENT_AD	C_FIRST_SHIPT	C_FIRST_SALES	C_SALUTATION	C_FIRST_NAME	C_LAST_NAME	C_PREFERRED_
18891201	AAAAAAAAB...	1672603	1484	7455518	2451793	2451763	Miss	Edna	Figueroa	N
18891202	AAAAAAA...	1664822	3607	10618745	2450648	2450618	Dr.	Helen	Estes	Y
18891203	AAAAAAA...	909382	1243	18451857	2452041	2452011	Sir	William	Unger	N
18891204	AAAAAAAE...	1833396	4666	13386336	2449280	2449250	Mr.	Charles	Reed	N

Row	CURRENT_TIMESTAMP
1	2020-11-08 16:23:25.342 -0800

Row	C_EMAIL_ADDRESS
1	john.doe@gmail.com

C_EMAIL_ADDRESS
Melinda.Mcdonald@S2y6OCshd.edu
Glenda.Gomez@Fyig2tnhFYdRf.edu
Mason.Roberts@iGC20e1MPvLR.edu
Bobby.Presley@L8QulSIHHc.org

C_EMAIL_ADDRESS
Conrad.Samuels@KLbidv1dROr3z0E.com
Juana.Hahn@8J2HH2eEps.edu
Garrett.Roderick@iES5pM7NOCQ.edu
James.Jenkins@vmmD8NIGAyGEa.org

C_CUSTOMER_	C_CUSTOMER_I	C_CURRENT_CD	C_CURRENT_HD	C_CURRENT_AD	C_FIRST_SHIPT	C_FIRST_SALES	C_SALUTATION	C_FIRST_NAME	C_LAST_NAME	C_PREFERRED_
18891201	AAAAAAAAB...	1672603	1484	7455518	2451793	2451763	Miss	Edna	Figueroa	N
18891202	AAAAAAA...	1664822	3607	10618745	2450648	2450618	Dr.	Helen	Estes	Y
18891203	AAAAAAA...	909382	1243	18451857	2452041	2452011	Sir	William	Unger	N
18891204	AAAAAAAE...	1833396	4666	13386336	2449280	2449250	Mr.	Charles	Reed	N

QUERY_ID	QUERY_TEXT	DATABASE_NAME	SCHEMA_NAME	QUERY_TYPE
019825cd-0438-0033-0000-002fd30330bd	DELETE FROM CUSTOMER;	C8_R2	PUBLIC	DELETE

Query_ID	SQL	141ms	100,000 rows
Filter result...			
Columns ▾			
Row	C_CUSTOMER_	C_CUSTOMER_I	C_CURRENT_CD
1	19542559	AAAAAAAAP...	1136614
2	19542560	AAAAAAA...	1199248
3	19542561	AAAAAAAB...	1542987

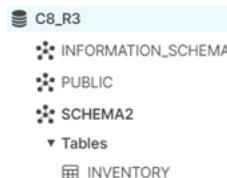
✓ Query_ID SQL 141ms 100,000 rows

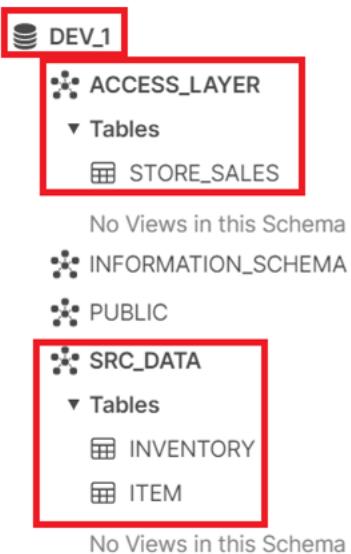
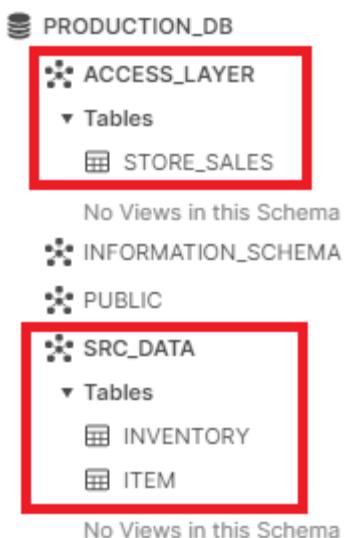
Filter result... Columns ▾

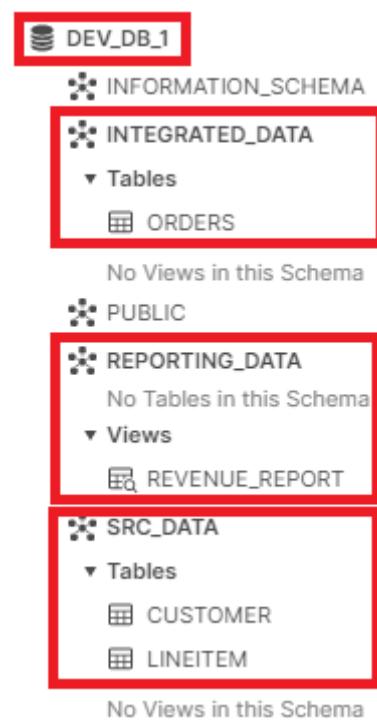
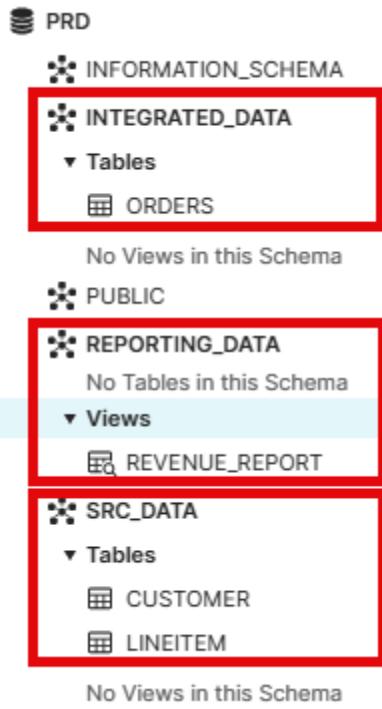
Row	C_CUSTOMER_	C_CUSTOMER_	C_CURRENT_CD	C_CURRENT_HD	C_CURRENT_AD	C_FIRST_SHIPT	C_FIRST_SALES	C_SALUTATION	C_FIRST_NAME	C_LAST_NAME	C_PREFERRED_L	C_BIRTH_
1	19542559	AAAAAAAAP...	1136614	1483	17691505	2449315	2449285	Dr.	Brian	Earley	Y	
2	19542560	AAAAAAAAAA...	1199248	2331	22443814	2450222	2450192	Miss	Dawn	Addison	N	
3	19542561	AAAAAAAAB...	1542987	1866	18481545	2451813	2451783	Sir	Marion	White	N	



Row	TABLE_CATALOG	TABLE_SCHEMA	TABLE_NAME	ID	CLONE_GROUP_ID	TABLE_CREATED	TABLE_DROPPED
1	C8_R3	SCHEMA2	INVENTORY	12	12	2020-11-09 18:43:...	NULL
2	C8_R3	SCHEMA1	CUSTOMER	2051	2051	2020-11-09 18:43:...	2020-11-09 18:44:...
3	C8_R3	SCHEMA1	CUSTOMER_ADD...	2053	2053	2020-11-09 18:43:...	NULL







Chapter 9: Advanced SQL Techniques

DATE_ID	DATE_VALUE
1	2019-12-19
2	2019-12-21
3	1970-01-01

Row	key	value	default	level	description	type
1	JDBC_FORMAT_DATE...	false	false		When true, ResultSet...	BOOLEAN
2	JDBC_USE_SESSION_...	false	false		When true, JDBC driv...	BOOLEAN
3	TIMEZONE	America/Los_Angeles	America/Los_Angeles		time zone	STRING

Row	key	value	default	level	description	type
1	JDBC_FORMAT_DATE...	false	false		When true, ResultSet...	BOOLEAN
2	JDBC_USE_SESSION_...	false	false		When true, JDBC driv...	BOOLEAN
3	TIMEZONE	Australia/Sydney	America/Los_Angeles	SESSION	time zone	STRING

TS_ID	TS_VALUE
1	2020-11-19 22:00:00.000

Results Data Preview

✓ Query ID SQL 123ms 1 rows

Filter result...

Row	TS
1	2020-11-19 22:00:00.000 +1100

Results Data Preview

✓ Query ID SQL 97ms 1 rows

Filter result...

Row	TS
1	2020-11-20 01:00:00.000 +1100

Row	CAL_DT
1	2020-01-01
2	2020-01-02
3	2020-01-03
4	2020-01-04
5	2020-01-05

Row	CAL_DT	CAL_DOM	CAL_MONTH	CAL_YEAR
1	2020-01-01	1	1	2020
2	2020-01-02	2	1	2020
3	2020-01-03	3	1	2020
4	2020-01-04	4	1	2020
5	2020-01-05	5	1	2020
6	2020-01-06	6	1	2020
7	2020-01-07	7	1	2020
8	2020-01-08	8	1	2020

Row	CAL_DT	CAL_DOM	CAL_MONTH	CAL_YEAR	CAL_FIRST_DOM	CAL_LAST_DOM
1	2021-01-01	1	1	2021	2021-01-01	2021-01-31
2	2021-01-02	2	1	2021	2021-01-01	2021-01-31
3	2021-01-03	3	1	2021	2021-01-01	2021-01-31
4	2021-01-04	4	1	2021	2021-01-01	2021-01-31
5	2021-01-05	5	1	2021	2021-01-01	2021-01-31
6	2021-01-06	6	1	2021	2021-01-01	2021-01-31

CAL_DT	CAL_DOM	CAL_MONTH	CAL_YEAR	CAL_FIRST_DOM	CAL_LAST_DOM	CAL_MONTH_NAME
2021-01-01	1	1	2021	2021-01-01	2021-01-31	January
2021-01-02	2	1	2021	2021-01-01	2021-01-31	January
2021-01-03	3	1	2021	2021-01-01	2021-01-31	January
2021-01-04	4	1	2021	2021-01-01	2021-01-31	January
2021-01-05	5	1	2021	2021-01-01	2021-01-31	January

CAL_DT	CAL_DOM	CAL_MONTH	CAL_YEAR	CAL_FIRST_DOM	CAL_LAST_DOM	CAL_MONTH_NAME	CAL_QTR_END_DT
2021-01-01	1	1	2021	2021-01-01	2021-01-31	January	2021-03-31
2021-01-02	2	1	2021	2021-01-01	2021-01-31	January	2021-03-31
2021-01-03	3	1	2021	2021-01-01	2021-01-31	January	2021-03-31
2021-01-04	4	1	2021	2021-01-01	2021-01-31	January	2021-03-31
2021-01-05	5	1	2021	2021-01-01	2021-01-31	January	2021-03-31

DATE_TRUNC('month',TO_DATE('2021-01-01'))

DATEADD('month',1,date_1)

2021-02-01

DATEADD('month',-1,date_2)

2021-01-01

Results Data Preview										Open History
Query ID	SQL	1m10s	1,000 rows	Columns ▾						
✓	O_ORDERKEY	O_CUSTKEY	O_ORDERSTATUS	O_TOTALPRICE	O_ORDERDATE	O_ORDERPRIORITY	O_CLERK	O_SHIPPRIORITY	O_COMMENT	
1	3885122373	42353626	F	132862.23	1994-07-22	3-MEDIUM	Clerk#000152185	0	ely ironic instruc...	
2	5517341863	6788068	F	416208.40	1994-02-22	3-MEDIUM	Clerk#000760776	0	ronic deposits a...	
3	473029282	88462495	O	226451.27	1998-03-08	3-MEDIUM	Clerk#0003690...	0	riously pending ...	

Row	O_ORDERPRIORITY	COUNT(O_CUSTKEY)
1	1-URGENT	300002709
2	2-HIGH	300005966
3	3-MEDIUM	299995087
4	4-NOT SPECIFIED	299993557
5	5-LOW	300002681

Results Data Preview

✓ [Query ID](#) [SQL](#) 1m58s 5 rows

[Download](#) [Copy](#)

Row	O_ORDERPRIORITY	COUNT(DISTINCT O_CUSTKEY)
1	1-URGENT	97803539
2	2-HIGH	97802436
3	3-MEDIUM	97799688
4	4-NOT SPECIFIED	97799505
5	5-LOW	97802711

Row	O_ORDERPRIORITY	APPROX_COUNT_DISTINCT(O_CUSTKEY)
1	1-URGENT	97569695
2	2-HIGH	98219126
3	3-MEDIUM	97969543
4	4-NOT SPECIFIED	97856783
5	5-LOW	97596857

Results Data Preview

✓ [Query ID](#) [SQL](#) 115ms 1 rows

[Download](#) [Copy](#)

Row	status
1	Function SP_ADJUST_CREDIT successfully created.

Results Data Preview

✓ [Query ID](#) [SQL](#) 43ms 1 rows

[Download](#) [Copy](#)

Row	status
1	Statement executed successfully.

Results Data Preview [← Open History](#)

✓ [Query ID](#) [SQL](#) 269ms  1 rows

Row	ACCOUNT	AMOUNT	PAYMENT_TS
1	1	100	2021-02-07 04:14:12.810

Results Data Preview [← Open History](#)

✓ [Query ID](#) [SQL](#) 157ms  1 rows

Row	ACCOUNT	AMOUNT	PAYMENT_TS
1	1	100	2021-02-07 04:14:12.810

Results Data Preview [← Open History](#)

✓ [Query ID](#) [SQL](#) 704ms  1 rows

Row	SP_ADJUST_CREDIT
1	Failed: SQL compilation error: Object 'TABLE_0123456789' does not exist or not authorized.

Results Data Preview

✓ [Query ID](#) [SQL](#) 83ms  365 rows

Row	CUSTOMER_ID	DEPOSIT	DEPOSIT_DT
1	0	200	2020-11-24
2	1	100	2020-11-23
3	2	500	2020-11-22
4	3	100	2020-11-21
5	4	200	2020-11-20
6	0	100	2020-11-19

Results Data Preview

✓ [Query ID](#) [SQL](#) 406ms  365 rows

Filter result...



Copy

Row	CUSTOMER_ID	DEPOSIT_DT	DEPOSIT	HI_DEPOSIT_ALERT
29	0	2020-07-07	500	TRUE
30	0	2020-07-02	300	TRUE
31	0	2020-06-27	100	FALSE
32	0	2020-06-22	100	FALSE
33	0	2020-06-17	200	FALSE

Results Data Preview

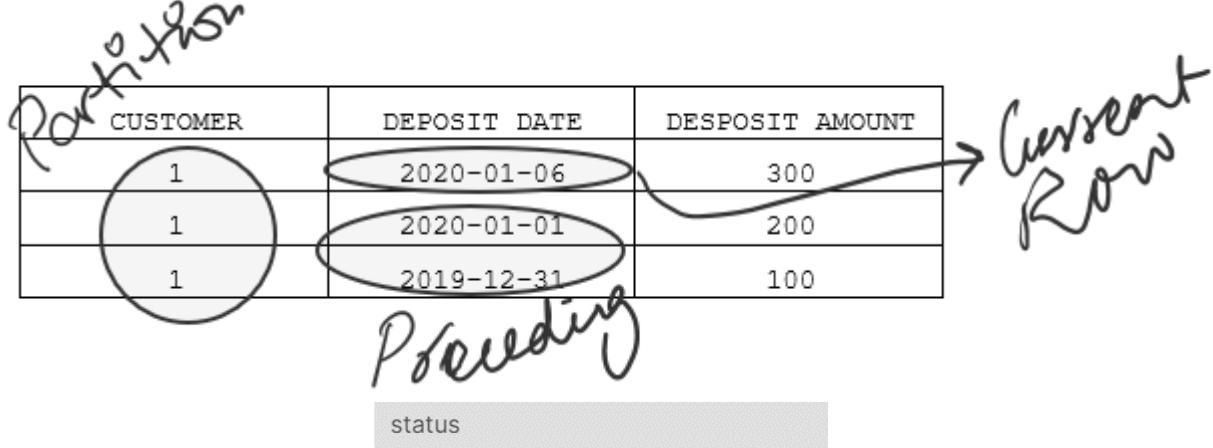
✓ [Query ID](#) [SQL](#) 263ms  73 rows

Filter result...



Copy

Row	CUSTOMER_ID	DEPOSIT_DT	DEPOSIT	PAST_AVERAGE_DEPOSIT	HI_DEPOSIT_ALERT
65	3	2020-01-06	400	325.000	TRUE
66	3	2020-01-01	500	300.000	TRUE
67	3	2019-12-27	100	333.333	FALSE
68	3	2019-12-22	300	340.000	FALSE
69	3	2019-12-17	100	400.000	FALSE
70	3	2019-12-12	300	433.333	FALSE
71	3	2019-12-07	500	400.000	TRUE
72	3	2019-12-02	300	500.000	FALSE
73	3	2019-11-27	500	0.000	TRUE



Sequence SEQ1 successfully created.

NEXTVAL

1

↓ NEXTVAL

2

NEXTVAL	NEXTVAL	NEXTVAL
---------	---------	---------

3

NEXTVAL

NEXTVAL

5

status

Sequence SEQ_SPECIAL successfully created.

NEXTVAL	NEXTVAL	NEXTVAL
---------	---------	---------

777

NEXTVAL

977

CUSTOMER_ID	CUSTOMER_NAME
-------------	---------------

1 7AY4NU9wab

2 3LRjC308Dw

3 3YSHXySbQe

4 D75Bs7VYmy

5 gOiwOBIr6E

6 hAxBZMzTIp

7 RFMWN3oELp

CUSTOMER_ID	CUSTOMER_NAME
-------------	---------------

1 TSbkuwBz3L

2 eZt6nFWIPC

3 vlsS3Dv27d

4 iKoQ9aFCzz

5 rSWSdzc5sJ

6 tcy8rb7gGF

Chapter 10: Extending Snowflake's Capabilities

D_DATE	REAL_PROFIT
2003-01-01	-153011149.065
2003-01-02	-152977353.948

Row	QUERY_ID	QUERY_TEXT	DATABASE_NAME	SCHEMA_NAME	QUERY_TYPE
1	019a4342-0...	CREATE DATABASE...	NULL	NULL	CREATE
2	019a4342-0...	USE DATABASE C10...	C10_R2	PUBLIC	USE
3	019a4342-0...	USE SCHEMA PUBL...	C10_R2	PUBLIC	USE

Row	LOCATIONNAME	TIMEZONENAME
1	Sydney	GMT+11
2	Auckland	GMT+13
3	Islamabad	GMT+5
4	London	GMT

Row	CUSTOMERNAME	TOTALSPENT
1	Customer#000044485	3480299.61
2	Customer#000055624	2442812.17
3	Customer#000041861	2262921.26
4	Customer#000003296	1392250.10
5	Customer#000000307	3866167.74

created_on	name	schema_name	is_builtin	is_aggregate	is_ansi	min_num_argument	max_num_arguments	arguments
2021-02-13 ...	CUSTOMER...	PUBLIC	N	N	N	0	0	CUSTOMERORDERS() RETURN
2021-02-13 ...	CUSTOMER...	PUBLIC	N	N	N	1	1	CUSTOMERORDERS(VARCHAR)

Row	INCREMENTAL_ID	A_RANDOM_NUMBER
1	0	1319172314325829327
2	1	7287171906336155199
3	2	1471939173074368979
4	3	1446911816204395330
5	4	3570717189561876932
6	5	8748051370615372015
7	6	9163926763116258811
8	7	-166691577935958742
9	8	-1882923199411928270
10	9	-3889428872739052128

Row	COUNTRYCODE ↓	COUNTRYNAME
1	AU	Australia
2	NZ	New Zealand
3	PK	Pakistan

N_NATIONKEY	N_NAME	↓ N_REGIONK	N_COMMENT	SIZE
0	ALGERIA	0	haggle. carefully final deposi...	7
1	ARGENTINA	1	al foxes promise slyly accord...	9
2	BRAZIL	1	y alongside of the pending d...	6
3	CANADA	1	eas hang ironic, silent packa...	6
4	EGYPT	4	y above the carefully unusua...	5
5	ETHIOPIA	0	ven packages wake quickly. ...	8
6	FRANCE	3	refully final requests. regular,...	6

"spark-snowflake"						
Group ID	Artifact ID	Latest Version		Updated	OSS Index	Download
net.snowflake	spark-snowflake_2.11	2.8.3-spark_2.4	(99+)	08-Dec-2020	🔗	⬇️
net.snowflake	spark-snowflake_2.12	2.8.3-spark_3.0	(23)	08-Dec-2020	🔗	⬇️
net.snowflake	spark-snowflake_2.10	2.5.3-spark_2.2	(56)	13-Sep-2019	🔗	⬇️

```

net.snowflake#spark-snowflake_2.12 added as a dependency
:: resolving dependencies :: org.apache.spark#spark-submit-parent-67ee4f32-a3da-4966-8103-f1b4e139b9af;1.0
  confs: [default]
    found net.snowflake#spark-snowflake_2.12;2.8.3-spark_3.0 in central
    found net.snowflake#snowflake-ingest-sdk;0.9.9 in central
    found net.snowflake#snowflake-jdbc;3.12.15 in central
:: resolution report :: resolve 171ms :: artifacts dl 29ms
  :: modules in use:
    net.snowflake#snowflake-ingest-sdk;0.9.9 from central in [default]
    net.snowflake#snowflake-jdbc;3.12.15 from central in [default]
    net.snowflake#spark-snowflake_2.12;2.8.3-spark_3.0 from central in [default]
  -----
  |      modules          ||   artifacts
  |      number|search|dwnlded|evicted|| number|dwnlded|
  |      default | 3 | 0 | 0 | 0 || 3 | 0 |
  -----
:: retrieving :: org.apache.spark#spark-submit-parent-67ee4f32-a3da-4966-8103-f1b4e139b9af
  confs: [default]
  0 artifacts copied, 3 already retrieved (0kB/39ms)
20/12/22 10:09:30 WARN NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classe
s where applicable
Using Spark's default log4j profile: org/apache/spark/log4j-defaults.properties
Setting default log level to "WARN".
To adjust logging level use sc.setLogLevel(newLevel). For SparkR, use setLogLevel(newLevel).
Spark context Web UI available at http://host.docker.internal:4040
Spark context available as 'sc' (master = local[*], app id = local-1608592176845).
Spark session available as 'spark'.
Welcome to

  / \ \
  \ V - V / \ / \
  / \ . \ , / \ / \ \
               version 3.0.1

:load test_sf_connect.scala
Loading test_sf_connect.scala...
SNOWFLAKE_SOURCE_NAME: String = net.snowflake.spark.snowflake
snowflakeOptions: scala.collection.immutable.Map[String, String] = Map(sfSchema -> TPCH_SF1, sfPassword -> ,
sfUser -> , sfWarehouse -> COMPUTE_WH, sfDatabase -> SNOWFLAKE_SAMPLE_DATA, sfURL -> .snowflake
computing.com)
res0: org.apache.spark.sql.DataFrameReader = org.apache.spark.sql.DataFrameReader@a73b3c4
res1: org.apache.spark.sql.DataFrameReader = org.apache.spark.sql.DataFrameReader@a73b3c4
res2: org.apache.spark.sql.DataFrameReader = org.apache.spark.sql.DataFrameReader@a73b3c4
res3: org.apache.spark.sql.DataFrameReader = org.apache.spark.sql.DataFrameReader@a73b3c4
21/02/13 23:38:26 WARN DefaultJDBCWrapper$: JDBC 3.12.16 is being used. But the certified JDBC version 3.12.15 is recom
ended.
21/02/13 23:38:32 WARN DefaultJDBCWrapper$: JDBC 3.12.16 is being used. But the certified JDBC version 3.12.15 is recom
ended.
21/02/13 23:38:33 WARN DefaultJDBCWrapper$: JDBC 3.12.16 is being used. But the certified JDBC version 3.12.15 is recom
ended.
+-----+-----+
| R_REGIONKEY | R_NAME | R_COMMENT |
+-----+-----+
| 0 | AFRICA | lar deposits. bli... |
| 1 | AMERICA | hs use ironic, ev... |
| 2 | ASIA | ges. thinly even ... |
| 3 | EUROPE | ly final courts c... |
| 4 | MIDDLE EAST | uickly special ac... |
+-----+-----+
+-----+-----+
| R_REGIONKEY | R_NAME | R_COMMENT | MARKET_SEGMENT | REVENUE |
+-----+-----+
| 0 | AFRICA | lar deposits. bli... | AUTOMOBILE | 45015338814.22 |
| 1 | AMERICA | hs use ironic, ev... | FURNITURE | 45312936950.84 |
| 2 | ASIA | ges. thinly even ... | HOUSEHOLD | 45393204061.23 |
| 3 | EUROPE | ly final courts c... | MACHINERY | 45201069094.82 |
| 4 | MIDDLE EAST | uickly special ac... | BUILDING | 45906757526.35 |
+-----+-----+

```

Query ID	SQL Text
019a4771-...	SELECT * FROM (SELECT ("SUBQUERY_0"."MARKET_SEGMENT") AS "SUBQUERY_1_COL_0", (CAST ("SUBQUERY_0"."REVENUE" AS VARCHAR)) AS "SUBQ..."

SQL Text

```

1  SELECT * FROM ( SELECT ( "SUBQUERY_0"."MARKET_SEGMENT" ) AS
2    "SUBQUERY_1_COL_0" , ( CAST ( "SUBQUERY_0"."REVENUE" AS VARCHAR ) ) AS
3    "SUBQUERY_1_COL_1" FROM ( SELECT * FROM ( ( SELECT C.C_MKTSEGMENT AS
4      MARKET_SEGMENT , SUM(O_TOTALPRICE) AS REVENUE
5        FROM SNOWFLAKE_SAMPLE_DATA.TPCH_SF1.ORDERS O
       LEFT OUTER JOIN
      SNOWFLAKE_SAMPLE_DATA.TPCH_SF1.CUSTOMER C
        ON O.O_CUSTKEY = C.C_CUSTKEY
        GROUP BY C.C_MKTSEGMENT ) ) AS
     "SF_CONNECTOR_QUERY_ALIAS" ) AS "SUBQUERY_0" ) AS "SUBQUERY_1" LIMIT 21

```

Row	MARKET_SEGMENT	REVENUE
1	AUTOMOBILE	45015338814.22
2	MACHINERY	45201069094.82
3	BUILDING	45906757526.35
4	FURNITURE	45312936950.84
5	HOUSEHOLD	45393204061.23

Status	Query ID	SQL Text
✓	019a4779-...	alter table identifier(CUST_REV_staging_1426353982) rename to identifier(CUST_REV)
✗	019a4779-...	desc table identifier(CUST_REV)
✓	019a4779-...	copy into CUST_REV_staging_1426353982 FROM @spark_connector_load_stage_qAtKNIVqdt/gKg2Mbxz3N/ FILE_FORMAT = (TYPE=CSV FIELD_DELIMITER=' ' ...
✓	019a4779-...	create table if not exists identifier(CUST_REV_staging_1426353982) ("MARKET_SEGMENT" STRING , "REVENUE" DECIMAL(24,2))
✗	019a4779-...	desc table identifier(CUST_REV)
✓	019a4779-...	PUT file:///tmp/dummy_location_spark_connector_tmp/@spark_connector_load_stage_qAtKNIVqdt
✓	019a4779-...	GET @spark_connector_load_stage_qAtKNIVqdt/file:///tmp/dummy_location_spark_connector_tmp/
✓	019a4779-...	create temporary stage if not exists identifier(spark_connector_load_stage_qAtKNIVqdt)
✓	019a4779-...	alter session set timezone = 'Australia/Sydney', timestamp_ntz_output_format = 'YYYY-MM-DD HH24:MI:SS.FF3', timestamp_ltz_output_format = 'TZHTZM YYYY-MM-DD HH24:MI:SS.FF3'
✓	019a4779-...	SELECT * FROM ((SELECT C.C_MKTSEGMENT AS MARKET_SEGMENT , SUM(O_TOTALPRICE) AS REVENUE FROM SNOWFLAKE_SAMPLE_DATA.TPCH_SF1.OR...