



Snowflake database configuration in MuleSoft

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Snowflake connector configuration

In this blog, we will discuss how can we create a developer trail account in Snowflake and create a MuleSoft Snowflake connection configuration. By following below steps:

- 1) Creating a Snowflake developer account.
- 2) Configuration of custom database and schema.
- 3) Configuration of MuleSoft Snowflake connection.
- 4) Demo on select and insert opeartions

Step 1: Creating a Snowflake account:

• First, let's go to <u>https://www.snowflake.com/login/</u>

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- Choose 'start for free' option as shown in the image
- Now enter the necessary information in the fields.
- We can use any mail like corporate, business and personal but we cannot use any temporary mails.
- Hit the continue button.





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Standard A strong balance between features, level of support, and cost. Enterprise Standard plus 90-day time travel, multi-clust warehouses, and materialized views. Business Critical Enterprise plus enhanced security, data protection, and database failover/failback. Choose your cloud provider*	d

- Use the default settings for the Snowflake edition type and choose your favorite cloud provider.
- I would suggest you choose a cloud provider that your company uses the most, low cost and the cloud should be near to your data center to avoid latency.

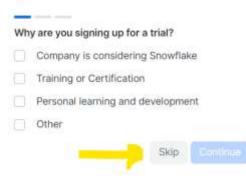
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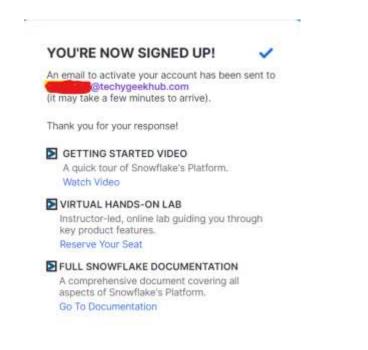


Thanks for signing up with Snowflake!

Help us better serve you by answering these questions.



- We can skip the survey and proceed to the further steps.
- They will ask multiple questions we can skip all of them.
- After completing all of them we will receive a link to the mail which we have provided.
- Go to the mail and click on "click to activate" button.

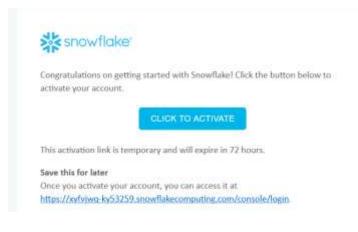


- We can also see one more link at the bottom of the mail, with that link we can login to the Snowflake account which we have created.
- We can also login to our account via <u>https://www.snowflake.com/login/m</u> as well.

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- It will open a new window in the default browser.
- It will ask to configure username and password.

Step 2: Configuration of database and schema in Snowflake

- After logging to the Snowflake account, go to data and choose databases.
- Click on +Database button highlighted in the image.
- Then go to the database that you have created and click on the +schema button highlighted in the image.
- Once database and schemas are created then we can create our tables in the schema.

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- To create a table, go to worksheets and open a work sheet.
- Worksheets are used to perform operations on the database, schemas and tables to modify, create and delete the data.
- Once we click on the worksheets it will navigate to new page to write Snowflake queries.

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- Now we have completed our prerequisites for the Snowflake connection configuration.
- Now we will go to MuleSoft and create a new connection for Snowflake.

Step 3: Snowflake connection configuration in MuleSoft

• Open Anypoint studio and create a project and go to "search in exchange"







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	- Hangator (Depretated)
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★ Favorites	APIKit for SOAP
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	NetSuite
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- Then enter "snowflake" in the search box.
- Choose Snowflake Connector with the latest version from the available modules.
- Then click on the add option which is in between the available modules and selected modules. It will add the Snowflake connector in the selected modules.
- Click on finish button to add to Anypoint studio. Refer to the below image for steps sequence.

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• Now go to global elements in the project file.

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• Choose create and search for snowflake config and click on it. It will open the Snowflake configuration.

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			Add Maven dependency
1 Test Convection. OR Canot			

• Choose the configure option and choose "Add Maven dependency" to add the snowflake jar file. Click on the finish button to add the dependency to the local repository.

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- In the above image we can see the Group id, Artifact id, version and more.
- For account name go to snow flake and click on Admin -> Accounts -> hover on to the Locator.
- Now you can see the <u>https://youraccountname.snowflakecomputing.com</u> as highlighted in the image below.

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• For **username** go to your account option on the top left corner, then choose profile inside that you can find the username.

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- You have to provide your **password** which you have created after activating the account.
- For now, we are leaving **warehouse** as its default value COMPUTE_WH. If you want to know your warehouse name, check in the profile section.
- We need to provide the **database** name and the **schema** name which we need to access in MuleSoft.
- For now, we are using the ACCOUNTADMIN **role**, so we need to change the role according to the level of authorization.

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- We can leave the remaining values as default. Or you can modify according to your business requirements.
- Please refer to the below mentioned image to check you have configured as expected.
- We can test connection now.

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Snowflake Config			
General Advanced	d No	otes Help	
General Advance	ed		-
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Connection	_		
Account Name:	fx	vn25648.ap-south-1.aws	
Warehouse:	fx	COMPUTE_WH	
Database:	fx	TECH_TALK_DEMO	
Schema:	fx	TECH_TALK_SCHEMA	
User:	fx		
Password:	•••	Show pass	sword
Role:	fx	ACCOUNTADMIN	
?		Test Connection OK	Cancel

Step 4: Demo on select and insert operations

Now we will see a dome on select and insert operations.

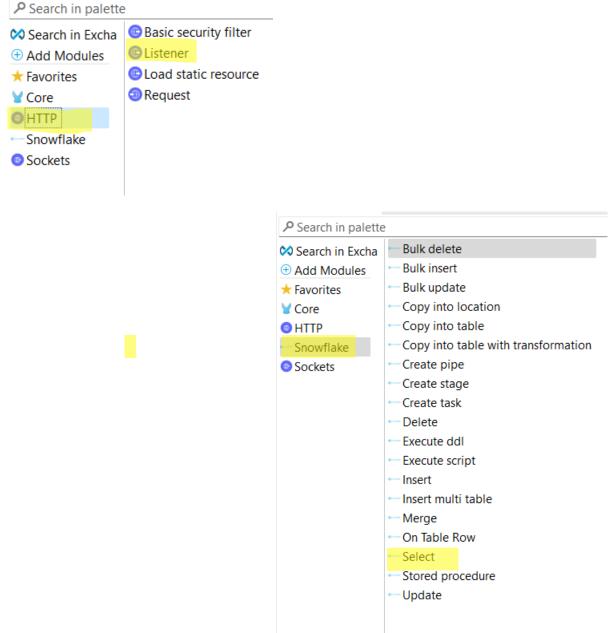
Step 1: Add the components to the flow

1) Add a listener to the process canvas

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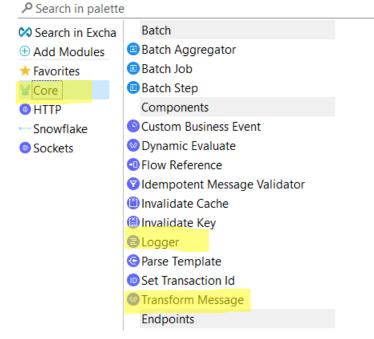
2) Add select operation from Snowflake

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3) Add transform from core module after that add logger



4) Flow will look like this

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Listener	Select	Transform Message	Logger
Error handli			

Step 2: Now configure the operations

 Open listener and add connection choose the connection configuration use the default configuration for now and add path to the listener

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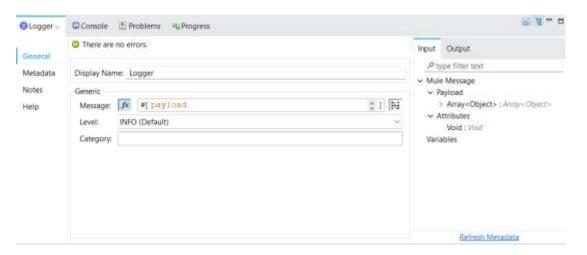
2) Now open Snowflake select operation it will automatically choose the connection. Now add the select statement for the particular table we want to retrieve data.

General	O There are no errors.	
Advanced	Display Name: Select	Э
Error Mapping	Basic Settings	
Metadata	Connector configuration: Snowflake_Config 🗠 🔶 🖗	a'
Notes	Query	
Help	SQL String:	
	select * from employees	
	Input Parameters: 19 (1) name" "Max", "inclutame" "The Mule", "company" "Mule	A.

3) We will get Java object from the snow flake, so we will transform it to JSON using transform message component.

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Payload Array-Object> Undefined Define Couput application/json Server Server	put Payload 🔹 🖘 🖌 🗉 🛛 🔯 🖽 🖂 Preview
Attributes : Void	output application/json

4) Now open the logger and log the same payload.



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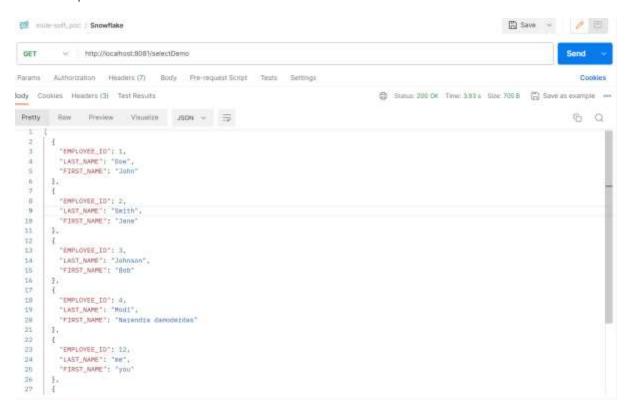


Step 3: Run the project and test it using postman

 Open postman and add the URL: - <u>http://localhost:8081/selectDemo</u> here selectDemo is the path which we created in the listener and remaining are the default values given in the listener component.

(12 mule-ant).poc / Snowlake	🖾 Save 🗸 🥖 🚍
GET ~ http://locathout:0081/selectDemo	Send 🚽
Parame Authorization Headers (7) Body Pre-request Script Tests Settings	Cookies
none form-data x-www-form-utlencoded raw GraphQL GraphQL	
This request does not have a bridy	

2) Now run the project as Mule application once it is deployed then send the request from postman, we will get the response from the API.



3) The data in the employees is retrieved from Snowflake.

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