Experiment 9: Data Sharing Overview

Snowflake enables account-to-account sharing of data through *shares*, which are created by data providers and "imported" by data consumers, either through their own Snowflake account or a provisioned Snowflake Reader account. The consumer could be an external entity/partner, or a different internal business unit which is required to have its own, unique Snowflake account.

With Data Sharing -

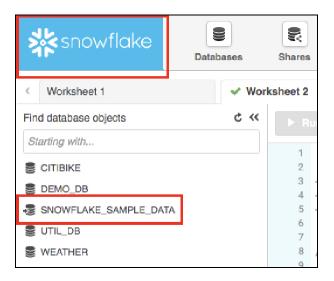
- There is only one copy of data, which lives in the data provider's account
- Shared data is always live, real-time and immediately available to consumers
- Providers can establish revocable, fine-grained access grants to shares
- Data sharing is simple and secure, especially compared to the "old" way of sharing data which
 was often manual and involved transferring large .csv across the Internet in a manner that
 might be insecure

Note - Data Sharing currently only supported between accounts in the same Snowflake Provider and Region

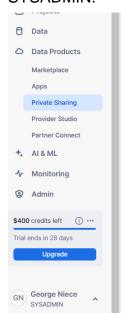
One example of data sharing is that Snowflake uses secure data sharing to share account usage data and sample data sets with all Snowflake accounts. In this capacity, Snowflake acts as the provider of the data and all other accounts act as the consumers. In your Snowflake environment you can easily see this and we walk through this in the next section.

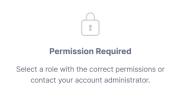
9.1 See Existing Shares

9.1.1 Click on the blue Snowflake logo at the very top left of the UI. On the left side of the UI in the database object browser, notice the database "SNOWFLAKE_SAMPLE_DATA", The small arrow on the database icon indicates this is a share.

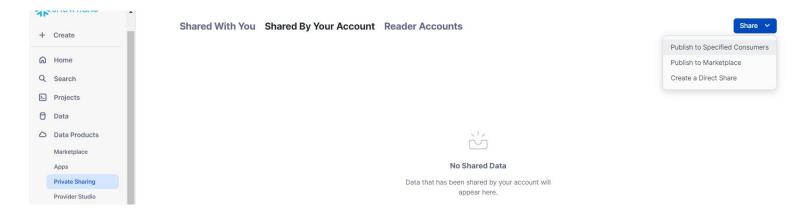


9.1.2 At the user context menu verify you are in the ACCOUNTADMIN role. Then select Data Products -> Private Share. Notice on this page you are looking at your Inbound Secure Shares and there are two shares shared by Snowflake with your account. One contains your account usage and the other has sample data you can use. This is data sharing in action - your Snowflake account is a consumer of data shared/provided by Snowflake! Below is what you see if you're not the correct role, in this case SYSADMIN.

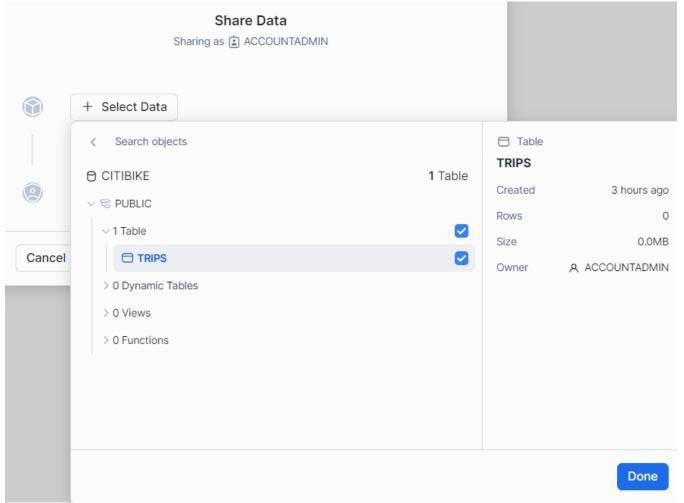




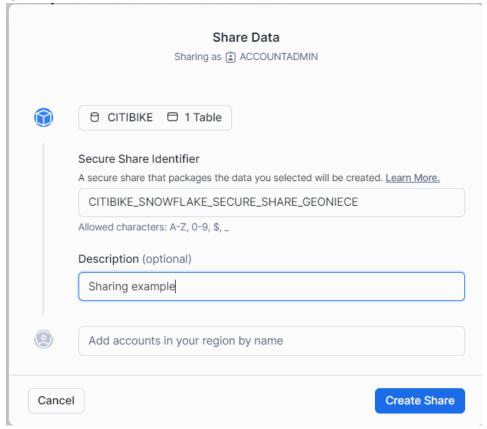
9.1.3 If you're ACCOUNTADMIN you'll see the ability to Share and the button/drop down.



Once we select the **Share -> Create a Direct Share**, we're presented with the selection for which object we'll share. In this case we'll share the TRIPS table in our CITIBIKE.PUBLIC database schema.

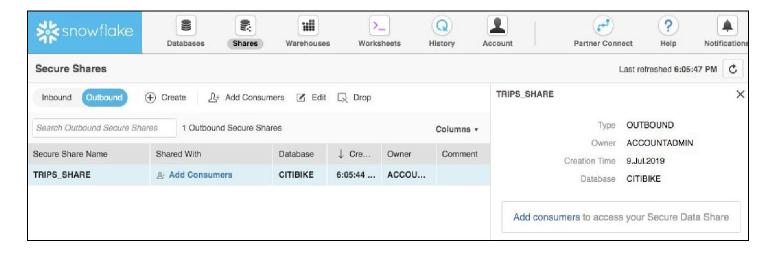


We have to provide a Secure Share Identifier and Description, and optional AWS Accounts in the Region our account is in.



9.1.4	Click on the	"Create Share"	button at the	bottom of the box.	

Note the My Share page now shows the secure share we created. It only took seconds to give other accounts access to data in Snowflake in a secure manner with no copies ofthe data having to be made!



Lastly, note that Snowflake provides several ways to securely share data without compromising confidentiality. You can share not only tables and views, but also Secure Views, Secure UDFs (User Defined Functions), and Secure Joins. For more details on how to use these methods for sharing data while preventing access to sensitive information, see the Snowflake documentation.

Congratulations, you are now done with this experiment! Let's wrap things up for the Foundation set of experiments in the next section.