Map to SnowFlake SnowPro Core Certification: Introduction

Chapter 1: Introduction to SnowFlake

Hello everyone. In this first chapter, we will take a look at the SnowFlake basics, apart from the typical exam questions that they usually ask about in the SnowFlake SnowPro Core Certification Exam. These are the concepts that we are going to study in this chapter:

1. SnowFlake as SaaS
2. SnowFlake Editions
3. Cloud Providers
4. Connecting to SnowFlake
5. Typical Exam Questions from this topic

SNOWFLAKE AS SAAS

Snowflake's is a Data Solution provided as Software-as-a-Service (SaaS). Snowflake enables data storage, processing, and analytic solutions that are faster, easier to use, and far more flexible than traditional offerings. It combines a new SQL query engine with an innovative architecture natively designed for the cloud. SnowFlake releases new features weekly. SnowFlake is optimal for different purposes.

- Data Warehouse
- Data Lake
- Data Exchange
- Data Apps
- Data Science
- Data Engineering

SNOWFLAKE EDITIONS

The first question that we can have is how we can try SnowFlake. You can apply for a 30-day free trial at the following link https://signup.snowflake.com/ where you can select between different editions, the standard, enterprise, or business-critical edition.

I would advise you to go for the enterprise one, to discover the full potential of SnowFlake.

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Let's see the differences between them:

- **Standard** → Introductory level offering, providing full, unlimited access to all of Snowflake's standard features. All of the standard edition features are included in the following versions.
- **Enterprise** → All the features and services of Standard Edition, with additional features designed specifically for the needs of large-scale enterprises and organizations.
- **Business Critical** → Formerly known as Enterprise for Sensitive Data (ESD), offers even higher levels of data protection to support the needs of organizations with extremely sensitive data.
- **Virtual Private SnowFlake** → Includes all the features and services of Business Critical Edition, but in a completely different Snowflake environment, isolated from all other Snowflake accounts.

In the following images, we compare the main features provided by each SnowFlake edition. We will study these features in the upcoming chapters:

Edition	Time Travel	Multi-Clusters	Fail-safe	Sharing	Customer Dedicated Virtual Warehouse	Materialized Views	Replication
Standard	1 day maximum	No	Yes	Yes	Yes	No	Yes
Enterprise	90 days maximum (1 by default)	Yes	Yes	Yes	Yes	Yes	Yes
Business Critical	90 days maximum (1 by default)	Yes	Yes	Yes	Yes	Yes	Yes

SnowFlake Features by Edition (I).

Edition	Column Level Security	Query Statement Encryption	Failover/Failback	Federated Authentication	PrivateLink	Tri-Secret Secure Encryption)
Standard	No	No	No	Yes	No	No
Enterprise	Yes	No	No	Yes	No	No
Business Critical	Yes	Yes	Yes	Yes	Yes	Yes

SnowFlake Features by Edition (II).

CLOUD PROVIDERS

Once we have decided which edition of SnowFlake we will use, we must choose which Cloud Provider we want. These are the cloud providers that SnowFlake supports:

- Amazon Web Services.
- Azure.
- Google Cloud Platform.

Cloud Providers that SnowFlake Supports.

It's crucial to remember the three different Cloud Providers that SnowFlake supports, as this question appears typically in the exam.

You can have data in Azure and load it into Snowflake on AWS with no problem. For government agencies that require compliance with US federal privacy and security standards, such as FIPS 140-2 and FedRAMP, Snowflake only supports Amazon Web Services and Azure. These government regions are only supported on Business-Critical Edition or higher.

CONNECTING TO SNOWFLAKE

We have different ways to connect to SnowFlake:

- Web Interface or Console
- SnowSQL → The CLI client. This is important to remember.
- ODBC
- JDBC
- SDK (Node, Python, Kafka, Spark, Go...)

Both for the ODBC and JDBC clients, we need to install the drivers from SnowFlake.

TYPICAL EXAM QUESTIONS FROM THIS TOPIC

As I mentioned in the introduction to the course, each chapter will contain the typical questions we are asked in the exam, with the answers below. Let's go with it.

1. Is Snowflake available on-premise?

1. True
2. False

Solution: 2. SnowFlake is 100% SaaS.

2. When you sign up for a SnowFlake trial account, what are the three SnowFlake editions offered?

1. Standard
2. Enterprise
3. Premier
4. Enterprise for Business Intelligence
5. Business Critical

Solution: 1, 2, 5.

3. Which SnowFlake edition supports private communication between Snowflake and your other VPCs through AWS PrivateLink?

1. Standard
2. Enterprise
3. Business Critical

Solution: 3.

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4.Which cloud provider is not supported by SnowFlake?

1. AWS
2. Azure
3. IBM
4. Google Cloud Platform

Solution: 3

5. Does Snowflake automatically stores data in encrypted form in all editions?

1. True
2. False

Solution: 1. Snowflake encrypts all customer data by default at no additional cost.

6. In which SnowFlake edition is the Tri-Secret Secure option available?

1. Standard or higher.
2. Enterprise or higher.
3. Business Critical or higher.

Solution: 3. The minimum edition to have Tri-Secret is the Business Critical one.

7. Can we use Multi-factor Authentication to connect to Snowflake via the Snowflake JDBC driver?

1. True
2. False

Solution: 1.

8. A client has ODBC or JDBC available in their systems, but they do not have the SnowFlake drivers. Is the client able to connect to SnowFlake?

1. True
2. False

Solution: 2. You will need the Snowflake ODBC or JDBC driver to connect to Snowflake; just having JDBC and ODBC will not solve the problem. You can download it through the UI Interface.

9. What is the name of Snowflake's Command Line Interface tool?

1. SnowCLI
2. SnowSQL
3. SnowTerminal
4. SnowCMD

Solution: 2

Thanks for Reading!