

❑Rocking Snowflake with AWS❑

Pre-requisites:

Snowflake & AWS Account

Stable internet connection while having hands-on

Basic SQL & Python Knowledge will be helpful but is not at all mandatory.

Thirst for New Learning

Humble Request to all readers:

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❑ Snowflake Essentials Concepts❑

Introduction & Architecture

- [Getting Started](#)
- [Snowflake - as a Service on AWS](#)
- [Behind the Name - "Snowflake" ❑❑❑](#)

Fundamental SQL Concepts

- [Documentation Reference](#)

Advanced SQL

- [Working with CTEs \(Common Table Expressions\) in Snowflake](#)
- [Introduction to Window function](#)

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[Calculate Cumulative Sum in Snowflake](#)

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[Sliding Window concept in Snowflake](#)

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[Introduction to the Partition By Window Function](#)

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[Lag & Lead function in Snowflake](#)

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[EAV Model & UNPIVOT in Snowflake in-depth intuition](#)

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[Snowflake listagg function & within group clause in-depth intuition](#)

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[HASH_AGG -- the "fingerprint" of Snowflake Table](#)

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[Querying Hierarchical Data in-depth intuition | Snowflake](#)

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[Solve any Correlated Subquery by following these steps](#)

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[EXISTS subquery in Snowflake in-depth intuition](#)

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[Simple way to find out all the objects used in a Snowflake view](#)

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[Snowflake Qualify Function in-depth intuition](#)

Transaction, Commit and Rollback in Snowflake

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[Documentation](#)

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[Fundamental Video](#)

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[Control Transactions in Python-Snowflake Connection](#)

Snowflake Stored Procedure

- [Documentation](#)
- [Fundamentals](#)
- [Pass argument to the Snowflake procedure](#)
- [Tactically return multiple values from Stored Procedure in Snowflake](#)
- [Snowflake Stored Procedure Logging](#)
- [Useful trick for Snowflake Stored Procedure in-depth intuition](#)
- [Transaction in Stored Procedure in-depth intuition](#)
- [Executing Multiple SQL Statements in a Stored Procedure](#)
- [Understanding Caller's Rights and Owner's Rights in Snowflake Stored Procedures](#)
- [Session Variables & viewing the definition of Stored Procedure with Owner's rights & Caller's rights](#)

Snowflake User-Defined Functions

- [Documentation](#)
- [Snowflake UDF For PDF File Page Count](#)

Snowflake CDC

[Documentation](#)

Snowflake Zero Copy Cloning

[Documentation](#)

Snowflake Time Travel

- [Documentation](#)
- [In-depth explanation](#)
- [Undrop a Table, Database or Schema](#)
- [Data Retention Period in Snowflake](#)

Fail-safe Property in Snowflake

- [Documentation](#)
- [Snowflake Fail Safe in-depth intuition](#)

Different types of Tables Snowflake

- [Documentation](#)
- [Different types of Snowflake Table , Schema & Database](#)

Snowflake Materialized Views

- [Documentation](#)

Caching in Snowflake Data Warehouse

- [Documentation](#)
- [Visualize Caching](#)

Configuring a Snowflake Storage Integration to Access Amazon S3

- [Documentation](#)
- [In-depth Explanation](#)

Snowpipe

- [Documentation](#)
- [Implementation with SQS](#)
- [Implementation with SNS](#)
- [Load JSON data from s3 using Snowpipe](#)
- [Email Alert Mechanism on load failure](#)
- [Troubleshooting Snowpipe in-depth explanation](#)

Explore Copy command in more detail

- [Know more about COPY INTO command \(Table\) in Snowflake](#)
- [Saving rejected rows while executing copy command | Snowflake](#)

Snowflake External Table

- [External Table refresh using SQS](#)
- [External Table refresh using SNS](#)
- [Snowflake External Table Metadata](#)
- [Creating Partitioned External tables in Snowflake | Partition Pruning using metadata filename](#)

Snowflake Directory Table

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[Documentation](#)

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[Snowflake Directory Tables & Automated Table Metadata Refreshes](#)

Snowflake Tasks

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[Documentation](#)

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[Fundamentals](#)

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[Scheduling a Stored Procedure using Snowflake Task](#)

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[Create a Simple tree of TASKS](#)

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[Snowflake Stored Procedure Parallel Execution using SQL & Snowflake Tasks \(Part 1\)](#)

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[Snowflake Stored Procedure Parallel Execution using SQL & Snowflake Tasks \(Part 2\)](#)

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[Error Notifications for Snowflake Tasks using SNS](#)

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[Snowflake Task graphs Visualization in DAG format](#)

Snowflake Data Unloading

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[Documentation](#)

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[Fundamental explanation](#)

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[Unload a Relational Table with multiple columns to JSON](#)

Automatic Schema Detection in Snowflake

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[Documentation](#)

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[In-depth Explanation](#)

Create & Send Email Notifications SYSTEM\$SEND_EMAIL()

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[Documentation](#)

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[In-depth explanation](#)

Snowflake Security & Access Control

Working with Roles and Users in Snowflake

[Fundamental Video](#)

Securing the Snowflake Account with Network Policies

[Fundamental Video](#)

Read server-side encrypted file in Snowflake

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[Documentation](#)

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[Hands-on](#)

Setup Multi-Factor Authentication (MFA) for your Snowflake Account

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[Documentation](#)

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[Hands-on](#)

Snowflake Data Masking

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[Documentation](#)

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[In-depth explanation](#)

- [Data Anonymization using Dynamic Data Masking](#)

Snowflake Secure Views & Row-level security

- [Secure View & Row-level Security In-depth explanation](#)
- [Implementing Row Access Policies in Snowflake](#)

Snowflake with AWS Services

With S3

- [Generating S3 pre-signed URLs using Snowflake with Indepth Intuition](#)
- [Transfer Data from S3 bucket to Snowflake via pandas](#)

With EC2

- [Build Snowflake API with Flask and deploy in EC2 | Part 1](#)
- [Build Snowflake API with Flask and deploy in EC2 | Part 2](#)
- [Build Snowflake API with Flask and deploy in EC2 | Part 3](#)
- [Key Pair Authentication in Snowflake for Linux machine from scratch](#)

With AWS Lambda

- [Snowflake Lambda Data Loader – Example with AWS S3 Trigger](#)
- [Snowflake-lambda-layer](#)
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[Use AWS Lambda to call Snowflake Stored Procedure](#)

- [Asynchronous layer over Snowflake](#)
- [Snowflake External Functions](#)
- [Snowflake External functions Part 2- How to do NLP and analyse product reviews stored in Snowflake](#)
- [Sending Email Notifications from Snowflake Using External Functions](#)
- [Automate Snowflake Reporting using Tasks, AWS Lambda , AWS SES](#)

With AWS Glue/EMR

- [PySpark-Snowflake Connectivity](#)
- [Connect EMR & Snowflake securely \(Securing password with Secret Manager\)](#)
- [Connecting Snowflake with Python Shell Jobs in AWS Glue](#)
- [AWS Glue to Snowflake connection using Snowpark](#)

Snowflake with Talend

- [Snowflake ETL using Talend](#)
- [Transfer data from S3 bucket to Snowflake using Talend Snowflake components](#)
- [Snowflake ELT using Talend](#)
- [Generic Framework to load the data from s3 External Stage to Snowflake External Table](#)

- [Deploy Talend Open Studio Standalone Job in another system \(EC2 Linux machine\)](#)
- [Calling a Talend Job from an external Java application](#)
- [Export Talend job as single fat jar & run the custom jar using step execution in AWS EMR Cluster](#)
- [Building a Type 2 Slowly Changing Dimension in Snowflake using TALEND ELT Component ☐☐](#)

Snowflake with Kafka

- [Documentation](#)
- [Set up Streaming Data Pipeline to ingest Kafka Data To Snowflake with a Python Producer from Scratch](#)
- [Analyze Streaming Data from Amazon Managed Streaming for Apache Kafka Using Snowflake](#)
- [☐Kafka + s3 + Snowflake ☐: Long-term searchable/queryable data retention](#)
- [Handling Message Errors using Dead Letter Queues in Apache Kafka In-depth intuition](#)

Snowpark with Python

- [Getting Started with Snowpark for Python on Snowflake](#)
- [Read CSV Data from External Stage & write in Permanent Snowflake Table using Snowflake Snowpark](#)
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[Read Parquet Data from External Stage & write in Permanent Snowflake Table using Snowflake Snowpark](#)

- [Read Json Data from External Stage , Flatten it & write in Snowflake Table using Snowflake Snowpark](#)

- [Snowflake Python Stored Procedure as In Line Code in Snowflake worksheet | in-depth intuition](#)

- [SnowPark + Copy Command = ? | Loading & Unloading data using Copy Command in SnowPark](#)

- [How To Analyze PDF Docs Using Snowpark](#)

- [AWS Glue to Snowflake connection using Snowpark](#)

Snowflake with Airflow

- [Connect Apache Airflow to Snowflake Data Warehouse](#)

- [End To End News Data Pipeline with Apache Airflow Snowflake & AWS Services](#)

- [Building a Batch Data Pipeline using Airflow, Spark, EMR & Snowflake](#)

- [How to Harnessing the Power of Airflow: S3 File Sensor + Talend Integration Demystified!](#)

Snowflake End-to-End Projects

- [End To End News Data Pipeline with Apache Airflow Snowflake & AWS Services](#)

- [Building Serverless Data Stream pipeline using Kinesis data streams and Firehose for Snowflake](#)

- [Email Deliverability Analytics using SendGrid, Snowflake & AWS Big Data Services in near-real time](#)
- [Building a Batch Data Pipeline using Airflow, Spark, EMR & Snowflake](#)
- [How to do Natural Language Processing & analyse product reviews stored in Snowflake](#)
- [CDC Pipeline from MySQL RDS to Snowflake \(from scratch\)](#)
- [Generic Job to load the data from s3 to Snowflake using copy command & capture the audit logs](#)
- [Building Real-Time Data Pipelines with Kafka , Faust & Snowflake](#)
- [ETL SFTP to Snowflake : End-to-End Data Pipeline Project using AWS Transfer Family, Lambda, Glue, Snowflake, and S3 Magic!](#)
- [Building a No-Code Real-Time Cryptocurrency Data Pipeline with Kafka, Snowflake & AWS](#)

DevOps In Snowflake

- [Snowflake CI/CD with GitHub Actions](#)
- [Quickstart](#)

V.V.I. Topics for Snowflake Interview

- [Schema on Read in Snowflake](#)
- [Union & Union All Difference](#)
- [Solving Tree Node Problem with Correlated Subquery](#)

- [Snowflake SCD Type 2 in-depth explanation](#)
- [Simple way to implement Type 1 SCD in Snowflake](#)
- [I have an existing table and I dropped that table and I created new table with same table name as old and with different data. Is there any way to get the old table data in Snowflake?](#)
- [Is it mandatory to create integration object or external stage before executing copy command?](#)
- How can you execute multiple Snowflake Queries/Stored Procedure in parallel?
[Snowflake Stored Procedure Parallel Execution using SQL & Snowflake Tasks \(Part 1\)](#)
[Snowflake Stored Procedure Parallel Execution using SQL & Snowflake Tasks \(Part 2\)](#)
[Execute queries in parallel against Snowflake using Python-Snowflake connector in-depth in tuition](#)
- Is Fail-Safe a reliable way to create Dev/Test/QA Environment?
No , Fail-Safe is not a good option for Dev/Test/QA or other non-production environment. It is only good for important production level data.
- When using a LATERAL FLATTEN in a semi-structured data query, what does the LATERAL do?
[LATERAL breaks an array into multiple elements.](#)
- Can we do Time Travel for External Tables?
No , as External Tables are not managed by Snowflake.
- John created a table Employee in worksheet1(Session 1) but when he ran SELECT * from Employee in worksheet2(Session 2) after setting up the correct Role , Database & Schema ,

he received error 'Table doesn't exist'. What could be the reason?

Employee Table created by John is a Temporary Table which is tied to a session only.

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[How to test Snowflake queries which are used for processing Data in ELT Pipeline?](#)

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[What table type should we use for Staging/Landing Table?](#)

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How to handle error notification at run for example Snowpipe is created but 100 records are going in error daily how to get notification for error records?

There are 2 steps in monitoring, you completed the set up , went to chill and after 2 days production system Snowpipe suddenly broke down□

then step 1: alert should be sent to all developer then only they will come to check health , else no-one will even know issue happened in Snowpipe, so for Snowpipe alarm functionality check this video , in-depth explanation

[Snowflake Snowpipe - Email Alert Mechanism](#)

Now next step , once alert triggered, developer will come to check what happened

Then to troubleshoot that check this video

[Troubleshooting Snowpipe in-depth explanation](#)

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[In which case did you use Transient Table?](#)

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What is the name of the service that powers MFA in Snowflake?

[Duo Security](#)

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What is the alternative authentication method to basic authentication that Snowflake supports?

[Key-pair Authentication](#)

