2026 FLAGSHIP CAREER PROGRAM

Snowflake + dbt Course Curriculum

Live, instructor-led training for cloud data warehousing, analytics engineering and production-ready data pipelines.

16 MODULES	HANDS-ON LABS	REAL-TIME PROJECTS
Snowflake + dbt	Daily guided practice	Portfolio-ready delivery

LEAD TRAINER

Balakrishna Koraganti | 15+ Years of Industry Experience

Senior Data Engineer and Snowflake specialist | SnowPro-certified | Currently working at Zelis Healthcare

Current batch dates and class timings are available on the Snowflake course page at yuvaninfo.com.

PROGRAM OVERVIEW

What You Will Learn

This curriculum combines Snowflake platform engineering with dbt analytics engineering. Learners progress from architecture and data loading to governance, optimization, production deployments and AI-ready data applications.

Cloud Data Warehousing

Design scalable Snowflake environments with separate compute and storage.

Production Pipelines

Build automated ingestion, CDC and transformation workflows.

Analytics Engineering

Create tested, documented and reusable dbt models.

LEARNING JOURNEY

From Fundamentals to Job-Ready Delivery

PHASE 1	Snowflake Foundations	Architecture, warehouses, stages, file formats and data loading
PHASE 2	Data Engineering	Snowpipe, Streams, Tasks, recovery, optimization and governance
PHASE 3	Advanced Snowflake and dbt	Sharing, Python, Snowpark, dbt models, testing and deployment
PHASE 4	Production and AI	Orchestration, enterprise integration, Cortex AI and projects

WHO CAN JOIN

Freshers, SQL and ETL developers, data analysts, database professionals, cloud engineers and working professionals moving into data engineering or analytics engineering roles.

CURRICULUM PHASE 1

Snowflake Core

MODULE 1: Snowflake Foundations and Architecture

- Snowflake history, editions and cloud data platform use cases
- Services, compute and storage layers
- Databases, schemas, objects, worksheets and Snowsight
- SnowSQL installation, configuration and command-line workflows

MODULE 2: Virtual Warehouses and Resource Management

- Warehouse creation, sizing, scaling and multi-cluster behavior
- Auto-suspend, auto-resume, concurrency and workload isolation
- Resource monitors, credit usage and cost controls
- Environment design for development, testing and production

MODULE 3: Stages, File Formats and COPY INTO

- User, table and named internal stages
- External stages on AWS S3, Azure Storage and Google Cloud Storage
- CSV, JSON, Parquet and other file-format objects
- COPY INTO options, validation, error handling and selective loading

MODULE 4: Automated Ingestion and Data Pipelines

- Snowpipe concepts, pipes and event notifications
- Auto-ingestion patterns for AWS, Azure and GCP
- Streams for change data capture and metadata columns
- Tasks, task graphs, scheduling and dynamic table concepts

CURRICULUM PHASE 2

Data Engineering and Governance

MODULE 5: Time Travel, Cloning and Data Recovery

- Historical queries using timestamps, offsets and statement IDs
- UNDROP operations and retention policies
- Zero-copy cloning for databases, schemas and tables
- Fail-safe concepts, limitations and recovery planning

MODULE 6: Performance and Cost Optimization

- Result, metadata, local disk and remote cache behavior
- Query profile analysis and common performance bottlenecks
- Micro-partitions, pruning and clustering strategies
- Search optimization, warehouse tuning and cost-aware design

MODULE 7: Semi-Structured Data and External Tables

- VARIANT, OBJECT and ARRAY data types
- Querying and flattening JSON data
- Loading Parquet and nested data structures
- External tables and materialized view concepts

MODULE 8: Roles, Security and Governance

- System-defined and custom role hierarchy
- Users, privileges, grants and future grants
- Role-based access control and least-privilege design
- Masking policies, row access policies, tags and auditing concepts

CURRICULUM PHASE 3

Advanced Snowflake and dbt

MODULE 9: Secure Data Sharing and Marketplace

- Inbound and outbound shares
- Reader accounts and cross-account collaboration
- Secure views and provider-consumer workflows
- Snowflake Marketplace and data-product concepts

MODULE 10: Functions, Procedures, Python and Snowpark

- SQL user-defined functions and stored procedures
- Python connector configuration and query execution
- Snowpark DataFrame fundamentals and Python worksheets
- Reusable transformation and automation patterns

MODULE 11: dbt Setup and Analytics Engineering Foundations

- dbt Core installation, profiles and project structure
- VS Code, Git and GitHub workflow setup
- Connecting dbt to Snowflake
- Building and running the first dbt model

MODULE 12: dbt Models and Transformation Workflows

- Sources, staging models and modular SQL design
- Table, view, incremental and ephemeral materializations
- Seeds, snapshots and slowly changing dimensions
- Ref, source and dependency management

CURRICULUM PHASE 4

Production, Integration and AI

MODULE 13: dbt Testing, Macros and Documentation

- Generic, singular and custom data tests
- Jinja templates, variables, macros and reusable logic
- Hooks, packages and environment configuration
- Documentation, lineage graphs and exposure concepts

MODULE 14: Deployment, CI/CD and Orchestration

- Development, pull request and release workflows
- Automated dbt build and test concepts
- Job scheduling with dbt and Snowflake Tasks
- Apache Airflow orchestration overview for production pipelines

MODULE 15: Enterprise Integration and Migration

- Oracle to Snowflake migration and ETL patterns
- Informatica Cloud mappings, tasks and monitoring
- Multi-cloud storage integrations
- Validation, reconciliation and cutover considerations

MODULE 16: Cortex AI and Snowflake Application Features

- Introduction to Snowflake Cortex AI
- Cortex Search and Cortex Analyst concepts
- Streamlit in Snowflake and notebooks
- AI-ready data workflows using Snowpark and governed enterprise data

PRACTICAL DELIVERY

Projects, Certification and Career Preparation

The program is designed around guided implementation. Every major concept is reinforced with labs, assignments, review sessions and realistic business scenarios.

Capstone 1

Build a retail analytics warehouse with staged ingestion, dimensional models and secure reporting.

Capstone 2

Create a CDC pipeline using Streams, Tasks and tested dbt incremental models.

Capstone 3

Develop a governed Snowflake data application using Streamlit and Cortex AI concepts.

MEET THE LEAD TRAINER

Balakrishna Koraganti

Senior Data Engineer, Snowflake specialist and Yuvan Infotech lead trainer with 15+ years of industry experience. Training connects platform concepts to practical engineering decisions, project requirements and interview scenarios.

LinkedIn: linkedin.com/in/balakrishna-koraganti-16029317/

INCLUDED WITH TRAINING

- Live instructor-led sessions	- Daily class recordings
- Hands-on labs and assignments	- SnowPro certification guidance
- Resume and LinkedIn preparation	- Mock interviews and project discussion
- Interview questions and revision support	- Placement assistance

READY TO DISCUSS THE COURSE?

Book a free course counselling session

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