

**Snowflake SnowPro Core Exam Prep**

**Course Number:** SQL-714EC
**Duration:** 4 days

**Overview**

This Snowflake course prepares attendees for the SnowPro Core exam and teaches real-world data management skills in Snowflake, the industry's leading cloud data platform.

**Prerequisites**

All attendees must have Data Warehouse knowledge.

**Materials**

All Snowflake training students receive comprehensive courseware.

**Software Needed on Each Student PC**

All attendees will need access to a Snowflake SQL environment with Accelebrate’s sample data loaded.

**Objectives**

* Master the cloud data warehousing landscape and modern data demands
* Understand Snowflake's architecture, including its cloud services, compute, and storage layers
* Implement best practices for optimal transfer within and beyond Snowflake
* Master Snowflake's objects and commands, using Snowpipe for efficient data pipelines
* Use SQL for data analysis, using advanced functions, crafting impactful queries, and creating custom UDFs and stored procedures
* Protect data by implementing encryption, authentication, and role-based access control
* Build a high-performing Snowflake environment using caching, data optimization, and cost-saving strategies

**Outline**

* Introduction
* Data Warehousing Overview
	+ Data warehousing evolution
	+ Cloud data warehousing
	+ Adapting to increasing demands for data access and analytics
	+ Adjusting to how data is created and used today
* Architecture and Overview
	+ Technical Overview
	+ Cloud Services Layer
	+ Compute Layer
	+ Storage Layer
* Architecture Deep Dive
	+ Optimization
	+ Security
	+ Tokenization
	+ Best Practices
* Data Movement
	+ Data Loading
	+ Data Unloading
	+ Best Practices
	+ Data Sharing
	+ Snowpipe
* Objects and Commands
	+ Query Constructs
	+ Data Description Language (DDL)
	+ Data Manipulation Language (DML)
	+ Local only resources
* SQL Support for Data Analysis
	+ SQL Support and Query Best Practices
	+ SQL Analytic Functions
	+ High Performing Estimation Functions
	+ UDF and Stored Procedure
	+ Demo Query Profile
* Managing Security
	+ Data Encryption
	+ Authentication
	+ Role-Based Access Control
* Semi-structured data
	+ Working with semi-structured data
	+ Queries
	+ Data Optimization
* Caching
	+ Caching Features
	+ Performance Improvements
	+ Cost Optimization
* Clients and Ecosystem
	+ Clients
	+ Connectors
	+ SnowSQL
* Security
	+ Continuous Data Protection
	+ Time Travel
	+ Fail Safe
	+ Cloning
* Performance and Concurrency
	+ Query Profile
	+ Micro-Partitions
	+ Data Clustering
	+ Scaling a Virtual Warehouse
* Account and Resources Management and Monitoring
	+ System Resource Usage and Billing
	+ Managing Virtual Warehouses
	+ Workload Independence and Segmentation
	+ Resource Monitors
	+ Information Schema and Account Usage
* Conclusion