

Efficiency Tips for Database Programming in SAS®

Course code: ETDP1F

This class teaches you how to tune your SAS programs for faster execution, especially those that access relational database tables using SAS/ACCESS interfaces or SAS Viya data connectors.

Who is the course for

Data scientists, data analysts, and SAS programmers

What we teach you

- Use SAS options to evaluate efficiency when accessing database data
- Tune SAS programs for faster processing
- Understand how relational database tables are accessed on the SAS Compute Server and in SAS Cloud Analytic Services (CAS)
- Understand conditions that can prevent SQL pass-through for execution in the database
- Modify SAS programs to maximize pass-through to the database and minimize execution time

Required skills

Before attending this course, you should either have at least six months of experience writing SAS programs that include PROC SQL code or have completed the SAS(R) SQL 1: Essentials course and used PROC SQL in SAS for at least one month. The course builds on concepts presented in both the SAS(R) Programming I: Essentials and SAS(R) SQL 1: Essentials courses, and it is not recommended for beginning SAS software users. Specifically, you should be able to:

- Access existing SAS data libraries using a LIBNAME statement.
- Write and submit SAS programs to access and manipulate data using the DATA step and PROC SQL.
- Read and interpret the SAS log.
- Diagnose and correct syntax errors in SAS.

Course outline

Foundational Concepts

- Introduction

LIBNAME Access to DBMS Tables

- The SAS/ACCESS LIBNAME Engine
- Implicit Pass-Through Basics
- Tuning SAS Programs
- Mitigating Common Problems
- Rules of Thumb for LIBNAME Access

Working with Multiple Data Sources

- Cross-Library Operations
- Accelerating Cross-Library Operations

The SQL Pass-Through Facility

- Implicit versus Explicit Pass-Through
- Explicit Pass-Through with PROC SQL
- Explicit Pass-Through with PROC FEDSQL

Accessing Database Tables in CAS

- Introduction to CAS
- SQL Pass-Through in CAS
- Working with CAS Tables

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