SAS

Curriculum

SAS Base

Getting Started using SAS

- History of SAS
- Introduction SAS Modules
- Rules for SAS Statements
- SAS Comments
- SAS Data set definition
- SAS Data Types
- Two Parts of SAS Program
- Difference between DATA and PROC Steps
- SAS Windowing Environment
- Submitting the SAS Program
- Reading SAS log and Output window
- Creating HTML Output
- SAS Data sets with SAS Explorer

Getting Your Data into SAS

- Methods for getting data into SAS
- Entering data with view table Window
- Telling SAS where to find raw data
- Reading Raw data separated by spaces (LIST INPUT)
- Reading Raw data separated by commas
- Reading Raw data separated by DSD method
- FORMAT and INFORMAT data types
- Applying an INFORMAT Statement to LIST INPUT
- Reading character values that contain blanks & Format Modifiers
- Reading raw data arranged in columns
- Reading selected variables data
- Holding the data line through multiple iterations of the DATA Step (@@)
- Temporary Vs Permanent data set
- INFILE Statement options (FIRST OBS= OBS MISSOV ER SCANOVER)
- Working with SAS dates

Working with your DATA

- Creating and redefining variables
- SAS Arithmetic operators
- SAS Logical Operators
- Using IF-THEN Statements
- Using IF-THEN/ELSE Statements
- RETAIN and SUM Statement
- SAS Arrays

Reading and Combining SAS Data Sets

- Modify DATA set by SET Statement
- Interleaving Data sets using the Set statement
- MERGE Statement
- Combining DATA sets using ONE-ONE MERGE
- Combining DATA sets using ONE – MANY MERGE
- Combining SAS Data sets by adding observations.
- Combining SAS Data sets by adding variables.
- SAS DATA SET Options.
- Difference between KEEP and DROP Statements.
- UPDATE Statement
- Update master file from a Transaction file (UPDATE STATEMENT).

SAS PROCEDURES

- PROC Print
- PROC Format
- PROC Contents
- PROC Sort
- PROC Append
- PROC Summary
- PROC Means
- PROC Compare
- PROC Report
- PROC Tabulate
- PROC Chart
- PROC Plot
- PROC Transpose
- PROC Export

SAS ACCESS

- Libref Statements
- Pass-through Method

SAS Advanced

SAS MACROS

- Macro Concepts
- Substituting Text with Macro Variables
- Creating modular code with Macros
- Adding parameters to Macros
- Automatic Macro Variables

SAS STAT

SAS/STAT software provides extensive Statistical capabilities with tools for both specialized and enterprise-wide analytical needs. SAS/STAT includes techniques for scoring and multiple testing.

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- Macro Queries – Solutions

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- PROC Univariate
- PROC Regression
- PROC Anova
- PROC Corr
- PROC Freq
- PROC Box plot

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SAS GRAPH

- Overview
- Procedures to produce Color plots, Charts
- Maps, Slides and other displays.
- Enhance graphics Output
- Types of Charts (Hbar, Vbar, Pie, Block, Donut, Star, pie3d, Hbar3d, Vbar3d charts)

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SAS SQL

- Introduction to SQL
- SQL Statements
- Importance of PROC SQL
- Overview of SELECT Statement
- SELECT and FROM Clause
- ORDER BY Clause
- GROUP BY Clause
- HAVING clause
- Selecting the data from more than one Tabl

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Output Delivery System

- Concept of ODS
- Tracing and Selecting Procedure Output
- Creating SAS Data Sets from Procedure Output
- Creating HTML Output
- Create RTF Output

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Specific Domain

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<tr><td>Clinical</td><td>Finance</td><td>Banking</td><td>Market Re.</td><td>Analytics</td><td>Pharma</td></tr>
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