SAS Online Course - Smart Mind Online Training, Hyderabad

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SAS Online Training Course Content

Faculty: Real time and certified

(Includes theoretical as well as practical sessions)

• BASICS BEFORE STARTING SAS:

• DATAWAREHOSING Concepts
• What is ETL
• ETL Concepts
• What is OLAP

• SAS:

• What is SAS
• History of SAS
• Modules available SAS

• GETTING STARTED WITH SAS SYSTEMS:

• Basic operating system commands, operating system file structures
• Managing windows in SAS window environment
• Use of different kind of SAS products and how to use in SAS application.
• Difference between the SAS products.
• Why using the SAS in different sectors.
• How to use the data step to read and manipulate complex forms of data
• Write Data and Proc steps.
• Data step compile and execution
• To run SAS application on different modes
• Reading internal reading and printing l raw data into SAS
• Read any type of external raw data into SAS
• Reading raw data SAS environment into DATA SET using Input statement & advance INLIFE statement options
• Working with Data Storage in SAS libraries creation for user defined libraries and multi-engine architecture

- Using a single libref to reference some or all SAS libraries reading and printing mixed records formats.
- Reading packed and zoned decimal data working with EBCDIC and ASCII data
- Reading data from data set to another data set.
- To manage the SAS window environment used with global options.
- Reducing memory requirements with BUFFNO and BUFSIZE working with SAS data set options
- To manage existing data with controlling statements and expressions
- Creating Summary Information, SAS Functions, Transforming Data
- Changing variable types using the PUT and INPUT functions summarizing data files
- Generation data sets to create historical information SAS
- To expert data from data sets to delimiter files using with data set block
- Understand error messages in the SAS Log and debug your program
- Use with Error Handling concepts

- PERFORM ITERATIVE PROCESSING ON DATA:

- Using Do loops for repetitive calculations and processing
- Using Arrays to process across an observations and processing
- Using DO WHILE and DO UNTIL statements for conditional looping

- INDEXING TECHINIQUES AND USES:

- When to use indexes
- Creating and deleting indexes
- Index advantages and disadvantages

- UTILITIES TO MANAGE AND WORK WITH DATASETS:

- Data using append procedure to add date values in existing dataset
- Using the update statement to update data in existing dataset.
- Using the MODIFY statements to update and modify data in place
- Merging concepts
- Data transformation
- Concatenation concept in merging
- Interleaving concept and merging
- Different kind of match merging using MERGE statement using the contribution (IN=)

option in merge concept
• Using ODS concept to generate reports

• BASE SAS PROCEDURES:

• Organize and sort SAS data sets and working with duplicates
• To generate listing output use print
• Comparing data sets with proc compare
• To create user defined informat and format statements use format
• Using proc copy to copy data sets
• Importance of contents procedure
• Reading data from dataset for reporting use report
• Using Proc Datasets to modify data set structure, attributes, how to use permanent formats, Setting up Integrity Constraints to maintain clean data and Setting up indexes
• Role of ODS concepts to reporting SAS output
• To generate SAS output in different panels like RTF, HTML,PDF and XML Using ODS

• How to use PROC SQL to retrieve INFORMATION from their Data:

• Introduction to SQL Concepts
• The origin of SQL and why we use it.
• Create new tables, indexes , views and reports

• SIMPLE QUERIES:

• Understanding to SQL Concepts
• How to specify columns and subset rows
• Using functions to summarize and group data
• Ordering data and formatting out
• Performing group analysis, remerging and sub queries

• JOINING DATA:

• What are Cartesian Products, what is join
• Inner, FULL, OUTER, LEFT and RIGHT Joins
• Set Operator us such as union and intersection joining multiple tables
• PROC SQL as compared to the data step

- WORKING WITH TABLES, VIEWS AND indexes:

- Creating Indexes and table in SQL
- Why we use Views in SQL
- Performance and space ISSUES

- ADVANCED SQL Topics:

- HOW TO USE SAS MACROS IN SQL
- How dictionary table and views can simplify programming SQL options
- How to retrieve Raw data different from DATABASES to SAS environment using SQL Statements
- To create table in different databases using SAS sql statement
- To manage in different databases using SAS Sql Statements

- PASS TROUGH FACILITY:

- Uses of pass through facility
- How to communicate with other database like Access, Oracle
- To control and manage other databases fro the SAS.
- To access required data from other databases
- To create DATAWAREHOUSING environment

- Basic Statistical Procedures (SAS/STAT) and reporting Procedure:

- To summary statistical Analysis Summary Procedure
- Producing Statistical with means Procedure
- Testing Categorical Data with FREQ PROCEDURE
- Reporting areas in SAS
- To generate report use with Proc Report
- Examining Data with Univarate Procedure

- How to work with SAS/ACCESS & SAS /Connect:

- To import data from different PC files use import procedure
- To export data from different source use access procedure
- To export data from datasets to different PC files use export Procedures

• Uses of DBLoad procedure and how to work
• To transport datasets one environment to another environment and one version to another version to another version (windows to UNIX) use with cprot and cimport procedures
• How to use Upload Procedure
• How to use Download Procedure

• How to work with MACRO LANGUAGE INTRODUCTION to MACROS:

• How the SAS macros Language Works
• What is the role of macro in SAS
• Introduction to tokening, compiling and executing a SAS program
• How the macro Processor Works

• Applying MACRO VARIABLES in a SAS PROGRAM:

• Applying automatic macro variables
• Designing customized macro variables
• Submitting the macro variables in SAS Programming
• Displaying MACRO VARIABLES VALUES in the SAS log
• Applying quoting functions with macros

• Incorporating SAS Macros in the DATA STEP:

• Designing macro variables during Data step Execution
• In directing referencing Macro variables
• Resolving Macro variables during DATA STEP EXECUTION
• Under staining the functionality and application of the SYSMGET function and SYSMPUT routine
• Using the INTO clause to build macro variables during PROC SQL execution

• RUNNING MACRO PROGRAMS IN SAS SOFTWARE:

• Designing and implementing simple macros and reduce customizing SAS application
• To Develop Reusable Application use with MACRO
• Specifying conditional coding inside a macro
• The macro compilation and execution processes in the macro processor SAS system

options used for debugging macros
• Reviewing error and warning log messages displayed by the macro processor
• Designing and using macros containing parameters within them
• Using positional and keyword parameters in macro calls
• Difference macros and symbol table Hierarchies
• Concepts in MACRO FUNCTIONS, MACRO INTERFACE AND MACRO Quoting Functions and how to use MACRO CODING.

• Techniques for Storing MACROS:

• Understanding the auto call feature
• Permanently storing and using compiled macros
• Writing Efficient macro programs

• DEBUGGING SAS PROGRAMS:

• SAS programs that work
• Fixing Programs that don't work
• Searching for the missing semicolon
• Input statement reaching past the end of line
• Lost card
• Invalid Data
• How to handle different kind of SAS errors
• Missing VALUES were Generated
• Numeric values have been converted to Character
• WRONG results but no error message
• The data step Debugger
• SAS Truncated a character variable
• SAS stops in the middle of the job
• SAS runs pout of memory or disk space