



Any Thing &  
Every Thing in  
Data Science

# Data Analytics with SAS Studio

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## **SAS - Introduction - Data importing**

- Introduction to SAS, GUI
- Concepts of Libraries, PDV, data execution etc
- Building blocks of SAS (Data & Proc Steps - Statements & options)
- Debugging SAS Codes
- Importing different types of data & connecting to data bases
- Data Understanding (Meta data, variable attributes (format, informat, length, label etc))
- SAS Procedures for data import /export / understanding (Proc import/Proc contents/Proc print/Proc means/Proc freq)

## **SAS - Data Manipulation**

- Data Manipulation steps (Sorting, filtering, duplicates, merging, appending, subsetting, derived variables, sampling, Data type conversions, renaming, formatting, etc)
- Data manipulation tools (Operators, Functions, Procedures, control structures, Loops, arrays etc)
- SAS Functions (Text, numeric, date, utility functions)
- SAS Procedures for data manipulation (Proc sort, proc format etc)
- SAS Options (System Level, procedure level)

## **SAS - Exploratory Data Analysis & Data visualization**

- Introduction exploratory data analysis
- Descriptive statistics, Frequency Tables and summarization
- Univariate Analysis (Distribution of data & Graphical Analysis)

- Bivariate Analysis(Cross Tabs, Distributions & Relationships, Graphical Analysis)
- SAS Procedures for Data Analysis(proc freq/Proc means/proc summary/proc tabulate/Proc univariate etc)
- SAS Procedures for Graphical Analysis (Proc Sgplot, proc gplot etc)

### **Intermediate SAS (Proc SQL - Macros) - Optimizing SAS**

- Introduction to Advanced SAS - Proc SQL & Macros
- Understanding select statement (From, where, group by, having, order by etc)
- Proc SQL - Data creation/extraction
- Proc SQL - Data Manipulation steps
- Proc SQL - Summarizing Data
- Proc SQL - Concept of sub queries, indexes etc
- SAS Macros - Creating/defining macro variables
- SAS Macros - Defining/calling macros
- SAS Macros- Concept of local/global variables
- SAS Macros - Debugging techniquesHave you opened a new location, redesigned your shop, or added a new product or service? Don't keep it to yourself, let folks know.

### **SAS - Reporting - Output Exporting**

- Introduction to Reporting
- SAS Reporting Procedures (Proc print, Proc Report, Proc Tabulate etc)
- Exporting data sets into different formats (Using proc export)
- Concept of ODS (output delivery system)
- ODS System - Exporting output into different formats