Data Science with SAS

PARAMETERS	SPECIFICATIONS
Tools Used	**SAS**
Learning Mode	**(Classroom – Instructor based)**
Duration	**48 – 52 Hours**
Batch size	**5- 8 Students**
Location	**Delhi (Saket)**
Course includes	**Live scenarios, Case Studies, Project, Assessments, Mock Interview.**
Study Material	**PPTs, Doc, Data, PDFs etc.**

Target Audience:

Any graduate - No prior knowledge of Data Science / Analytics is required.

What is SAS?

SAS is licensed based software suite developed by SAS Institute for advanced analytics, Multivariate analyses, Business Intelligence, Data Management, and Predictive analytics.

SAS is widely uses by Data scientists, statisticians, Researchers and Data analysts—anyone who needs to make sense/insight of data can use SAS for Statistical Analysis, Data visualization, and Predictive Modeling.

SAS is a leader in business analytics and No. 1 in Advanced and Predictive Analytics market share. SAS held a 30.5 percent market share for 2016 in the advanced and predictive analytics category.

Job Profiles in SAS:

SAS Programmer/Reporter
Data Analyst/Miner
Data Modeler
Data Scientist
ML Specialist
NLP Specialist and many more.

*****COURSE CONTENT*****

TECHNICAL

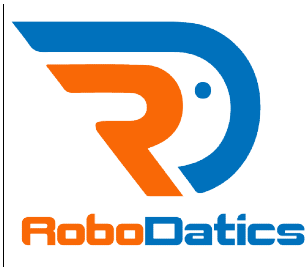
- **Introduction**

Introduction to SAS Programming

Working in the SAS Environment

Working with the windows

- Enhance editor window
- Log window
- Output window
- Result window
- Explorer window
- Program editor window



Overview of libraries, Dataset, Variables and Metadata

- Datasets
- Referencing Files in SAS Libraries
- Contents
- Variable Names and Values
- Data step execution
- Data Handling

Basic concepts

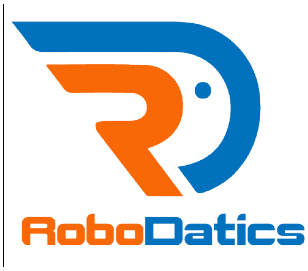
- Creating a SAS Programs
- Components of SAS Programs
- Characteristics of SAS Programs
- Layout of SAS Programs

Understanding Data step Processing

- Program data vector(PDV)
- Compilation Phase
- Execution Phase

Reading Raw Data from External File

- Infile statement
- Filename statement



Options & Titles

- Global options
- Local Options

Statements

- Global Statements
- Local Statements

Input Styles

- List input
- Column input
- Formatted input
- Modified input
- Named input

Trailing

- @
- @@

Informats and Formats

Informats

- Character informats
- Numeric informats
- Date and time informats

Formats

- Character formats
- Numeric formats
- Date and time formats

Functions

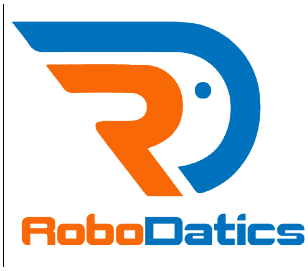
- Arithmetic Functions
- String Functions
- Date and Time Functions

Combining SAS Datasets

- Concatenating
- Merging
- One-to-one merging
- One-to-many merging
- Many-to-one merging
- Many-to-many merging
- Matching merging
- Interleaving
- Updating

Control Statements

- If statement and if else statement
- If then else statement
- Where statement
- Loops (do, do until, do while)



Writing Data to External Files

- File Statement
- Put Statement

Output Delivery System (ODS)

- Fundamentals of the ODS
- ODS and the Data step
- Syntax for ODS Enhanced features in a Data step

- Introduction to ODS language Statements
- Dictionary of ODS language Statements

Debugging of Errors

- Writing SAS programs that work
- Fixing programs that Don’t work
- Types of Errors

Working with SAS Inbuilt Procedures

- Proc Print
- Proc Sort
- Proc Contents
- Proc Append
- Proc Import
- Proc Export
- Proc Datasets
- Proc Surveyselect
- Proc Ttest
- Proc Transpose
- Proc Freq
- Proc Formats
- Proc Tabulate
- Proc Report
- Proc Printto
- Proc Means
- Proc Summary
- Proc Anova and many more.

SAS/GRAPH

- Introduction to Graphs
- Types of Graphs
    - Chart
    - Plot
    - Illustration of symbol options

SAS/MACROS

- Introduction to Macro Language Elements
- Introduction to Macro Variables
    - Automatic Macro Variables
    - User defined Macro Variables

- Introduction to Macro Processing
- Macro Statements
- Macro Functions

SAS/SQL

- Introduction to Proc SQL
- Creating tables
- Inserting data into tables
- Alter the tables & etc…
- Update
- Modifying the tables
- Integration of Database
- Connecting to a DBMS Using the SQL Procedure Pass-Through Facility
- Connecting to a excel Using the SQL Procedure Pass-Through Facility
- Connecting to a access Using the SQL Procedure Pass-Through Facility

- Connecting to a DBMS Using the Libname Statement
  Retrieving Data from Multiple tables

- Inner Join
- Outer Join (Right, Left, Full)

Extra Stuff

2 - Assessments
1 - Mock Interview
Resume designing
Assignments based on Lectures
Interview Preparation
Job Assistance (Only if in case candidate scores 70% or above in assessments and also depends on availability of openings in above companies.)