

# SAS® Programming 2: Data Manipulation Techniques

Course code: PG2V2

This course is for those who need to learn data manipulation techniques using the SAS DATA step and procedures to access, transform, and summarize data. The course builds on the concepts that are presented in the SAS(R) Programming I: Essentials course and is not recommended for beginning SAS software users.

## Who is the course for

Business analysts and SAS programmers

## What we teach you

- Understand and control DATA step processing
- Create an accumulating column and process data in groups
- Manipulate data with functions
- Convert column type
- Create custom formats
- Concatenate and merge tables
- Process repetitive code
- Restructure tables

## Required skills

Before attending this course, you should have knowledge equivalent to having completed the SAS Programming 1:

Essentials course. Specifically, you should be able to do the following:

- Write DATA step code to subset rows and columns, compute new columns, and process data conditionally
- Sort tables using the SORT procedure
- Apply SAS formats

## Course outline

### Controlling DATA Step Processing

- Setting up for this course
- Understanding DATA step processing
- Directing DATA step output

### Summarizing Data

- Creating an accumulating column
- Processing data in groups

### Manipulating Data with Functions

- Understanding SAS functions and CALL routines
- Using numeric and date functions
- Using character functions
- Using special functions to convert column type

### Creating Custom Formats

- Creating and using custom formats
- Creating custom formats from tables

### Combining Tables

- Concatenating tables
- Merging tables
- Identifying matching and nonmatching rows

### Processing Repetitive Code

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# SAS® Programming 2: Data Manipulation Techniques

- Using iterative DO loops
- Using conditional DO loops

## Restructuring Tables

- Restructuring data with the DATA step
- Restructuring data with the TRANSPOSE procedure

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