How can I analyze data using SAS?

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SAS (Statistical Analysis System) is a powerful software program designed for data analysis and management. It provides a comprehensive set of tools and techniques for processing, manipulating, and visualizing data. To analyze data using SAS, one must first import the data into the software and then perform various statistical procedures, such as descriptive statistics, regression analysis, and data mining. SAS also offers a user-friendly interface and customizable programming language for more advanced data analysis. This allows users to efficiently analyze and interpret large datasets, identify patterns and trends, and make data-driven decisions. Overall, SAS is a valuable tool for businesses, researchers, and organizations looking to gain meaningful insights from their data.

Part 1: Inferential Statistics for Association

Correlation with PROC CORRPearson correlation is used to assess the strength and direction of a linear relationship between pairs of continuous numeric variables.Chi-square Test of IndependenceThe chi-square test of independence is used to test if two categorical variables are independent of each other. In SAS, the chi-square test of independence is included in PROC FREQ.

Inferential Statistics for Comparing Means

Independent Samples t TestIndependent samples t tests are used to test if the means of two independent groups are significantly different. In SAS, PROC TTEST with a CLASS statement and a VAR statement can be used to conduct an independent samples t test.Paired Samples t TestPaired t tests are used to test if the means of two paired measurements, such as pretest/posttest scores, are significantly different. In SAS, PROC TTEST with a PAIRED statement can be used to conduct a paired samples t test.