

# Glossary: From Understanding to Preparation

Welcome! This alphabetized glossary contains many of the terms you'll find within this lesson. These terms are important for you to recognize when working in the industry, when participating in user groups, and when participating in other certificate programs.

Term	Definition
<b>Automation</b>	Using tools and techniques to streamline data collection and preparation processes.
<b>Data Collection</b>	The phase of gathering and assembling data from various sources.
<b>Data Compilation</b>	The process of organizing and structuring data to create a comprehensive data set.
<b>Data Formatting</b>	The process of standardizing the data to ensure uniformity and ease of analysis.
<b>Data Manipulation</b>	The process of transforming data into a usable format.
<b>Data Preparation</b>	The phase where data is cleaned, transformed, and formatted for further analysis, including feature engineering and text analysis.
<b>Data Preparation</b>	The stage where data is transformed and organized to facilitate effective analysis and modeling.
<b>Data Quality</b>	Assessment of data integrity and completeness, addressing missing, invalid, or misleading values.
<b>Data Quality Assessment</b>	The evaluation of data integrity, accuracy, and completeness.
<b>Data Set</b>	A collection of data used for analysis and modeling.
<b>Data Understanding</b>	The stage in the data science methodology focused on exploring and analyzing the collected data to ensure that the data is representative of the problem to be solved.
<b>Descriptive Statistics</b>	Summary statistics that data scientists use to describe and understand the distribution of variables, such as mean, median, minimum, maximum, and standard deviation.
<b>Feature</b>	A characteristic or attribute within the data that helps in solving the problem.
<b>Feature Engineering</b>	The process of creating new features or variables based on domain knowledge to improve machine learning algorithms' performance.
<b>Feature Extraction</b>	Identifying and selecting relevant features or attributes from the data set.
<b>Interactive Processes</b>	Iterative and continuous refinement of the methodology based on insights and feedback from data analysis.
<b>Missing Values</b>	Values that are absent or unknown in the dataset, requiring careful handling during data preparation.
<b>Model Calibration</b>	Adjusting model parameters to improve accuracy and alignment with the initial design.
<b>Pairwise Correlations</b>	An analysis to determine the relationships and correlations between different variables.
<b>Text Analysis</b>	Steps to analyze and manipulate textual data, extracting meaningful information and patterns.
<b>Text Analysis Groupings</b>	Creating meaningful groupings and categories from textual data for analysis.
<b>Visualization techniques</b>	Methods and tools that data scientists use to create visual representations or graphics that enhance the accessibility and understanding of data patterns, relationships, and insights.

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