

# Glossary

## Advanced Data Analytics

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## Terms and definitions from Course 3

### A

**Action:** A Tableau tool to help an audience interact with a visualization or dashboard by allowing control of selection

### B

**Bias:** In data structuring, organizing data results in groupings, categories, or variables that are misrepresentative of the whole dataset

**Bin:** A segment of data that groups values into categories

**Box plot:** A data visualization that depicts the locality, spread, and skew of groups of values within quartiles

### C

**Categorical data:** Data that is divided into a limited number of qualitative groups

**Cleaning:** The process of removing errors that might distort your data or make it less useful; one of the six practices of EDA

**Collective outliers:** A group of abnormal points, following similar patterns and isolated from the rest of the population

**Contextual outliers:** Normal data points under certain conditions but become anomalies under most other conditions

**Continuous:** A mathematical concept indicating that a measure or dimension has an infinite and uncountable number of outcomes

**CSV file:** A simple text file that can be easy to import or store in other softwares, platforms, and databases

## D

**Database (DB) file:** A file type used to store data, often in tables, indexes, or fields

**Data ethics:** Well-founded standards of right and wrong that dictate how data is collected, shared, and used

**Data governance:** A process for ensuring the formal management of a company's data assets

**Data source:** The location where data originates

**Data visualization:** A graph, chart, diagram, or dashboard that is created as a representation of information

**Deduplication:** The elimination or removal of matching data values in a dataset

**Dimensions:** Qualitative data values used to categorize and group data to reveal details about it

**Discovering:** The process data professionals use to familiarize themselves with the data so they can start conceptualizing how to use it; one of the six practices of EDA

**Discrete:** A mathematical concept indicating that a measure or dimension has a finite and countable number of outcomes

**Docstring:** (Refer to **documentation string**)

**Documentation string:** A group of text that explains what a method or function does; also referred to as a "docstring"

**Dummy variables:** Variables with values of 0 or 1 that indicate the presence or absence of something

## E

**Exploratory data analysis (EDA):** The process of investigating, organizing, and analyzing datasets and summarizing their main characteristics, often by employing data wrangling and visualization methods; the six main practices of EDA are: discovering, structuring, cleaning, joining, validating, and presenting

**Extracting:** The process of retrieving data out of data sources for further data processing

## F

**Filtering:** The process of selecting a smaller part of a dataset based on specified values and using it for viewing or analysis

**First-party data:** Data that was gathered from inside your own organization

## G

**Global outliers:** Values that are completely different from the overall data group and have no association with any other outliers

**Grouping:** The process of aggregating individual observations of a variable into groups

## H

**Heatmap:** A type of data visualization that depicts the magnitude of an instance or set of values based on two colors

**Histogram:** A data visualization that depicts an approximate representation of the distribution of values in a dataset

**Hypothesis:** A theory or an explanation, based on evidence, that has not yet been refuted

## I

**Info():** Gives the total number of entries, along with the data types—called Dtypes in pandas—of the individual entries

**Input validation:** The practice of thoroughly analyzing and double-checking to make sure data is complete, error-free, and high quality

**Int64:** A standard integer data type, representing numbers somewhere between negative nine quintillion and positive nine quintillion

## J

**Joining:** The process of augmenting data by adding values from other datasets; one of the six practices of EDA

**JSON file:** A data storage file that is saved in a JavaScript format

## L

**Label encoding:** Data transformation technique where each category is assigned a unique number instead of a qualitative value

## M

**Measures:** Numeric values that can be aggregated or placed in calculations

**Merging:** A method to combine two (or more) different data frames along a specified starting column(s)

**Missing data:** A data value that is not stored for a variable in the observation of interest

## N

**Non-null count:** The total number of data entries for a data column that are not blank

## O

**One-hot encoding:** A data transformation technique that turns one categorical variable into several binary variables

**Outliers:** Observations that are an abnormal distance from other values or an overall pattern in a data population

## P

**PACE:** A workflow data professionals can use to remain focused on the end goal of any given dataset; stands for plan, analyze, construct, and execute

**Presenting:** The process of making a cleaned dataset available to others for analysis or further modeling; one of the six practices of EDA

## S

**Second-party data:** Data that was gathered outside your organization but directly from the original source

**Set:** A Tableau term for a custom field of data created from a larger dataset based on custom conditions

**Slicing:** A method for breaking information down into smaller parts to facilitate efficient examination and analysis from different viewpoints

**Sorting:** The process of arranging data into a meaningful order for analysis

**Story:** A Tableau term for a group of dashboards or worksheets assembled into a presentation

**String:** A sequence of characters and punctuation that contains textual information

**Structuring:** The process of taking raw data and organizing or transforming it to be more easily visualized, explained, or modeled; one of the six practices of EDA

## T

**Tableau:** A data visualization software primarily used for presenting data to inform and improve businesses

**Third-party data:** Data gathered outside your organization and aggregated

## V

**Validating:** The process of verifying that the data is consistent and high quality; one of the six practices of EDA