

Glossary

Data Analytics

Terms and Definitions



A

Action-oriented question: A question whose answers lead to change

Algorithm: A process or set of rules followed for a specific task

Analytical skills: Qualities and characteristics associated with using facts to solve problems

Analytical thinking: The process of identifying and defining a problem, then solving it by using data in an organized, step-by-step manner

Attribute: A characteristic or quality of data used to label a column in a table

B

Big data: Large, complex datasets typically involving long periods of time, which enable data analysts to address far-reaching business problems

Business task: The question or problem that data analysis answers for a business

C

Cloud: A place to keep data online, rather than a computer hard drive

Context: The condition in which something exists or happens

D

Dashboard: A tool that monitors live, incoming data

Data: A collection of facts

Data analysis: The collection, transformation, and organization of data in order to draw conclusions, make predictions, and drive informed decision-making

Data analysis process: The six phases of ask, prepare, process, analyze, share, and act whose purpose is to gain insights that drive informed decision-making

Data analyst: Someone who collects, transforms, and organizes data in order to draw conclusions, make predictions, and drive informed decision-making

Data analytics: The science of data

Data design: How information is organized

Data-driven decision-making: The process of using facts to guide business strategy

Data ecosystem: The various elements that interact with one another in order to produce, manage, store, organize, analyze, and share data

Data-inspired decision-making: The process of exploring different data sources to find out what they have in common

Data life cycle: The sequence of stages that data experiences, which include plan, capture, manage, analyze, archive, and destroy

Data science: A field of study that uses raw data to create new ways of modeling and understanding the unknown

Data strategy: The management of the people, processes, and tools used in data analysis

Data visualization: The graphical representation of data

Database: A collection of data stored in a computer system

Dataset: A collection of data that can be manipulated or analyzed as one unit

E

F

Fairness: A quality of data analysis that does not create or reinforce bias

Formula: A set of instructions used to perform a calculation using the data in a spreadsheet

Function: A preset command that automatically performs a process or task using the data in a spreadsheet

G

Gap analysis: A method for examining and evaluating the current state of a process in order to identify opportunities for improvement in the future

H

I

J

K

L

Leading question: A question that steers people toward a certain response

M

Measurable question: A question whose answers can be quantified and assessed

Metric: A single, quantifiable type of data that is used for measurement

Metric goal: A measurable goal set by a company and evaluated using metrics

N

O

Observation: The attributes that describe a piece of data contained in a row of a table

P

Pivot chart: A chart created from the fields in a pivot table

Pivot table: A data summarization tool used to sort, reorganize, group, count, total, or average data

Problem types: The various problems that data analysts encounter, including categorizing things, discovering connections, finding patterns, identifying themes, making predictions, and spotting something unusual

Q

Qualitative data: A subjective and explanatory measure of a quality or characteristic

Quantitative data: A specific and objective measure, such as a number, quantity, or range

Query: A request for data or information from a database

Query language: A computer programming language used to communicate with a database

R

Relevant question: A question that has significance to the problem to be solved

Report: A static collection of data periodically given to stakeholders

Return on investment (ROI): A formula that uses the metrics of investment and profit to evaluate the success of an investment

Revenue: The total amount of income generated by the sale of goods or services

Root cause: The reason why a problem occurs

S

Small data: Small, specific data points typically involving a short period of time, which are useful for making day-to-day decisions

SMART methodology: A tool for determining a question's effectiveness based on whether it is specific, measurable, action-oriented, relevant, and time-bound

Specific question: A question that is simple, significant, and focused on a single topic or a few closely related ideas

Spreadsheet: A digital worksheet

SQL: Refer to Structured Query Language

Stakeholders: People who invest time and resources into a project and are interested in its outcome

Structured thinking: The process of recognizing the current problem or situation, organizing available information, revealing gaps and opportunities, and identifying options

Structured Query Language: A computer programming language used to communicate with a database

T

Technical mindset: The ability to break things down into smaller steps or pieces and work with them in an orderly and logical way

Time-bound question: A question that specifies a timeframe to be studied

U

Unfair question: A question that makes assumptions or is difficult to answer honestly

V

Visualization: (Refer to data visualization)

W

X

Y

Z