

Exploratory Data Analysis

EDA in 5 Simple Steps!



Swipe to Learn

Exploratory Data Analysis (EDA): Step 01/05

Data Understanding

- Familiarize yourself with the dataset's structure, variables, and their meanings.
- Identify the data types (numeric, categorical, datetime) to guide your analysis.
- Gain domain knowledge to better interpret the data and its potential insights.

Exploratory Data Analysis (EDA): Step 02/05

Data Cleaning & Pre-Processing

- Handle missing values by imputation or considering their impact on the analysis.
- Address outliers and anomalies that could affect the analysis results.
- Standardize and normalize the data if necessary for fair comparisons.

Exploratory Data Analysis (EDA): Step 03/05

Descriptive Analysis

- Calculate summary statistics (mean, median, standard deviation, etc.) for numeric variables.
- Analyze distributions using histograms, box plots, and density plots.
- Examine categorical variables through frequency tables and bar charts.

Exploratory Data Analysis (EDA): Step 04/05

Feature Relationships & Correlations

- Identify correlations between variables using correlation matrices and scatter plots.
- Perform cross-tabulations and chi-square tests for categorical variable relationships.
- Investigate multivariate relationships through pair plots and parallel coordinate plots.

Exploratory Data Analysis (EDA): Step 05/05

Extracting Insights & Unveiling the Story

- Summarize your findings and draw meaningful conclusions from the discovered insights.
- Uncover the underlying reasons or factors behind the observed trends and patterns.
 - Identify actionable insights and recommendations to drive informed decision-making and optimize outcomes.