

# ■ Data Cleaning & Data Analysis Checklist

## ■ Data Cleaning Steps

- Data Collection & Importing – Gather and load data from sources.
- Data Inspection / Profiling – Understand structure, quality, and anomalies.
- Handling Missing Data – Remove, impute, or keep missing values.
- Removing Duplicates – Drop redundant rows/records.
- Handling Outliers – Detect and treat/cap/remove as appropriate.
- Standardizing & Normalizing Data – Ensure consistent formats and units.
- Correcting Data Types & Formatting – Assign correct data types.
- Dealing with Inconsistent/Incorrect Data – Fix typos, unify categories.
- Feature Engineering (Optional) – Create new variables if useful.
- Final Verification – Double-check cleaned dataset.

## ■ Data Analysis Steps

- Define Business Problem/Question – Clarify objective.
- Exploratory Data Analysis (EDA) – Summarize stats & visualize data.
- Hypothesis Testing / Statistical Analysis – Validate assumptions.
- Data Modeling (if applicable) – Build predictive or explanatory models.
- Drawing Insights – Interpret results for decision-making.
- Data Visualization & Reporting – Create charts, dashboards, reports.
- Communication & Recommendations – Present findings to stakeholders.