EDA Coverage Summary - Banking Dataset

#	Main Section	Sub-section	Purpose / Description	In Notebook?
1	Introduction to EDA	What, Why, When	Explain EDA's role and importance in the ML pipeline	
2	Load Dataset	Upload or Select Sample Dataset	Provide data for exploration	
3	Dataset Overview	Shape, Types, Head, Nulls Summary	High-level snapshot of structure, types, and missing data	
4	Univariate Analysis	Categorical & Numerical Features	Explore distributions, class counts, value ranges	
5	Bivariate Analysis	Feature vs Feature or Target	Analyze pairwise relationships	
6	Multivariate Analysis	3+ Feature Interactions	Spot complex patterns involving multiple features	
7	Missing Value Analysis	Pattern and % Missing	Detect missingness patterns, visualize nulls	
8	Outlier Detection	Identify Outliers	Detect extreme values using Z-score, IQR, etc.	
9	Skewness & Transformation	Shape Analysis & Normalization	Identify skewed distributions and apply corrections	
10	Target Analysis	Target Distribution / Class Balance	Analyze the response variable for regression or classification	
11	Correlation Analysis	Correlation Matrix + Heatmap	Discover linear relationships between features	
12	Class Imbalance	Frequency & Alerts	Flag major class imbalance for classification tasks	
13	Cardinality Check	High-cardinality Categorical Detection	Identify categorical variables with too many unique values	
14	Data Quality Check	Duplicates, Anomalies, Zero-Variance	Check for duplicates, constant columns, invalid formats	
15	Time Series Profiling	Trend, Seasonality, Time Gaps	Analyze features with temporal behavior	
16	Multicollinearity	Variance Inflation Factor (VIF)	Detect redundant, highly-correlated features	
17	Interaction Effects	Feature Interactions	Detect new features via interactions	
18	Data Leakage Check	Future Knowledge Leaks	Flag features too predictive or derived from target	
19	Feature Engineering Hints	Derivable Feature Suggestions	Suggest potentially useful derived variables	
20	Clustering Patterns	Discover Row Patterns	Use unsupervised learning for initial segmentation	
21	AutoEDA Tools	Full Auto Profile	Generate quick summary reports	
22	Statistical EDA	Skewness, Outliers, Tests	Deep dive into statistical measures and assumptions	