Bank Loan Analysis | Power BI Project

Project Summary

This project demonstrates my ability as a fresher Data Analyst to analyze financial data and convert raw datasets into actionable business insights. Using Power BI, I performed data cleaning, modeling, and visualization to analyze bank loan performance, customer segments, and risk indicators.

This project reflects my hands-on skills in Power BI, DAX, Power Query, and data analysis fundamentals.

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Project Objectives

- Analyze overall bank loan distribution and performance
- Identify patterns in loan approvals, repayments, and defaults
- Segment customers based on income, loan amount, and loan term
- Build interactive dashboards for business decision support

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Dataset Overview

The dataset includes structured bank loan records with the following attributes:

- Customer income and employment details
- Loan amount, interest rate, and tenure
- Loan purpose and category
- Loan status (Fully Paid, Current, Defaulted)

*(Dataset used for analytical and learning purposes)*

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Tools & Skills Demonstrated (ATS Keywords)

- Power BI Desktop
- Power Query (ETL, Data Cleaning, Transformation)
- DAX (Measures, KPIs, Calculated Columns)
- Data Modeling & Relationships
- Data Visualization & Dashboard Design
- Financial Data Analysis
- Business Intelligence (BI)

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Key KPIs & Calculations

- Total Loan Amount
- Total Number of Loans
- Average Loan Amount
- Average Interest Rate
- Loan Approval Rate
- Bad Loan / Default Percentage

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Dashboard Insights

- Loan Performance Analysis: Comparison of fully paid, current, and defaulted loans
- Customer Segmentation: Analysis by income group and employment type
- Trend Analysis: Monthly and yearly loan distribution trends
- Risk Analysis: Identification of high-risk loan segments

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Key Learnings & Outcomes

- Developed strong understanding of financial and banking datasets
- Applied DAX functions to create meaningful KPIs
- Improved skills in data storytelling and dashboard usability
- Learned how to design reports aligned with business requirements
- Add SQL-based data source integration
- Implement predictive analysis for loan default risk
- Enhance drill-through and tooltip analysis