# Bank ML Loan Data Analysis: Banker's Perspective

This report provides a comprehensive financial analysis of loan data from Bank ML.   
It includes demographic insights, loan characteristics, risk profiling, and key statistics for approved and declined loans.

## Overall Dataset Statistics

Total loans: 45000

Approved loans: 10000 (22.22%)

Declined loans: 35000 (77.78%)

Average loan amount: $9,583.16

Total loan amount requested: $431,242,090.00

## Demographics Insights

Average age of borrowers: 27.8 years

Gender distribution: Female: 44.80%, Male: 55.20%

Education levels (percentage):

- Bachelor: 29.78%

- Associate: 26.73%

- High School: 26.60%

- Master: 15.51%

- Doctorate: 1.38%

## Loan Characteristics

Average interest rate: 11.01%

Maximum loan amount: $35,000.00

Minimum loan amount: $500.00

## Creditworthiness and Risks

Average credit score: 632.61

Percentage of high-risk borrowers (credit score < 600): 24.06%

## Approved vs Declined Loans Comparison

Average loan amount for approved loans: $10,855.69

Average loan amount for declined loans: $9,219.58

## Loan-to-Income Ratios

Average loan-to-income ratio: 0.14

## Key Insights and Recommendations

1. A significant proportion of loans are approved, but high-risk borrowers (credit score < 600) make up a considerable percentage.

2. Loans with higher interest rates are likely targeting riskier profiles. Monitoring repayment behavior can refine risk pricing.

3. Younger borrowers with limited employment history may benefit from specialized loan products to encourage financial inclusion.

4. Enhancing underwriting standards, especially for borrowers with high loan-to-income ratios, can reduce default risks.

5. The education loan segment shows lower amounts, suggesting potential for expansion with favorable terms.