financial services

HEISENBERG

Kareem Shaaban 🔗

HEISENBERG Albuquerque, New Mexico

Contents

- Introduction

- Problem Statement

- Project Objectives

- Data Analysis & Visualizations

- Findings & Recommendations

Introduction

- **Heisenberg** is a financial services company specializing in providing loans to individuals and small businesses. The company is looking to better understand its loan portfolio, identify key risk factors, and improve customer satisfaction.

Problem Statement

- My task is to create a Loan Data Analysis Dashboard that will provide insights into the company's loan performance, customer demographics, and potential areas for improvement. This dashboard will be used by the management team to make data-driven decisions about loan approval processes, interest rates, and risk management.
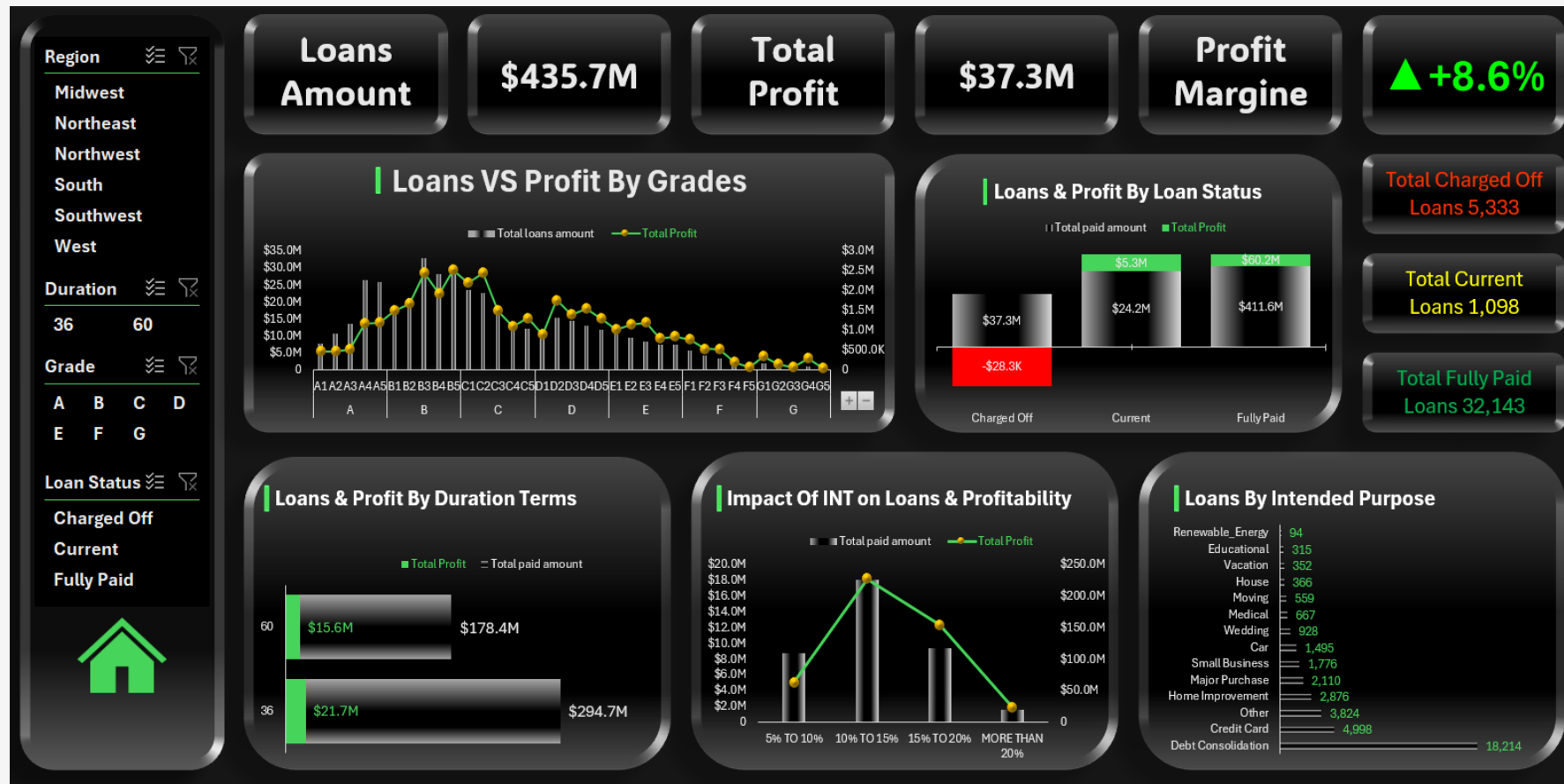
Project Objectives

- Clearly define the challenges Heisenberg faces

- Data Cleaning and Transformation

- Analyze key metrics

- Design the dashboard to be user-friendly and interactive
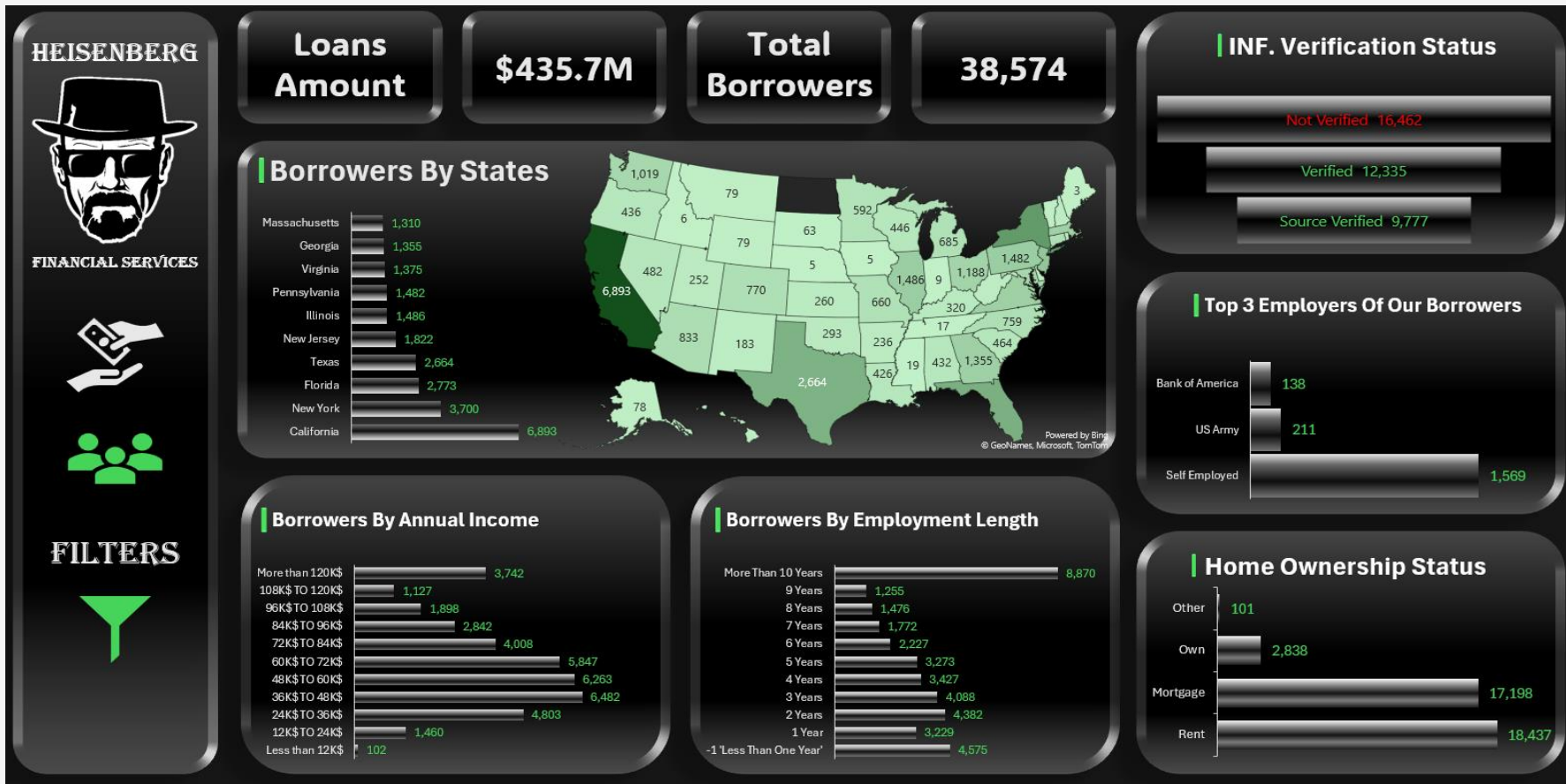
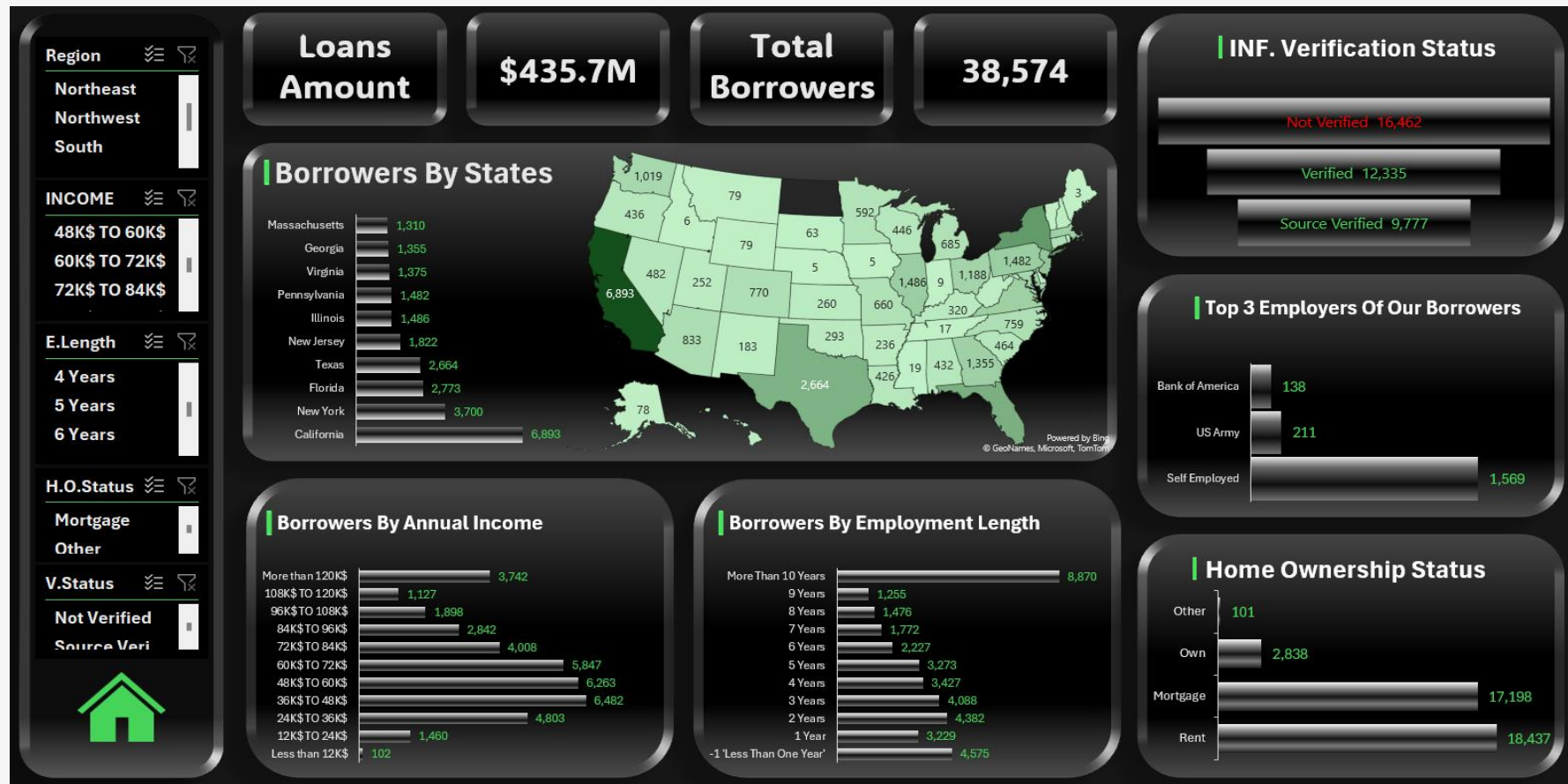- Provide insights on high-risk loans

Data Analysis & Visualizations
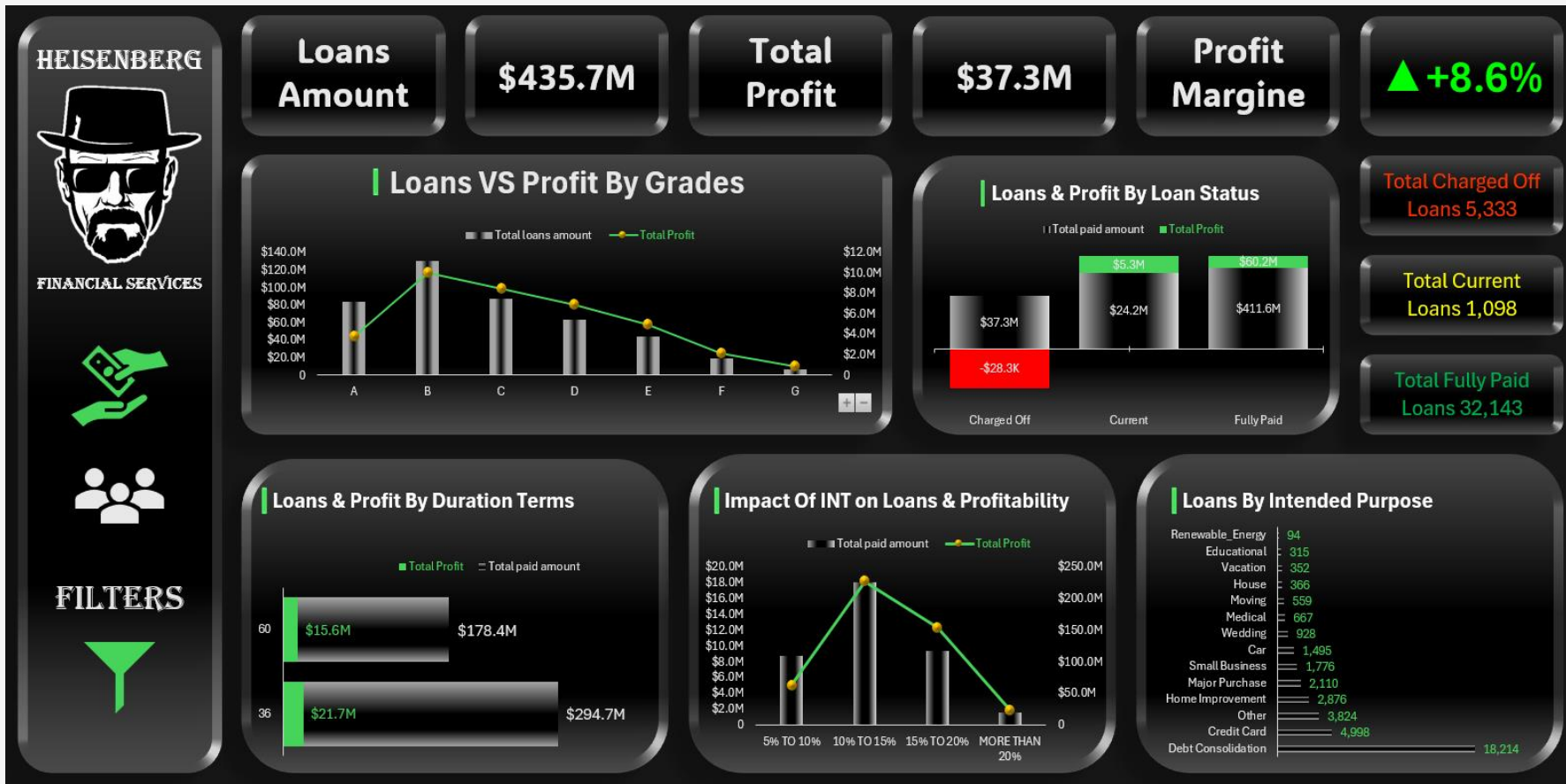
Data Analysis & Visualizations

Data Analysis & Visualizations

Findings & Recommendations

- INF. Verification Status

  - **Observation**: We have a significant amount of unverified information, which poses a high risk. This missing or unverified data is crucial for accurately evaluating loan grades. As a result, this has likely contributed to the high number of charged-off loans.

  - **Recommendation**: Implement stricter verification processes to ensure all borrower information is accurate and complete before approving loans. This could involve enhancing automated verification tools or requiring additional documentation. Strengthening the verification process will reduce the risk associated with incomplete data and help lower the number of charged-off loans by improving loan evaluations.

Findings & Recommendations

- Borrowers' INF.
  - **Observation**: Most of our customers have been employed for ten years, with annual incomes ranging between $24K and $84K. Many of them either rent or have a mortgage, and a significant number are self-employed.
  - **Recommendation:**
    - Tailored Loans: Create products for self-employed and moderate-income customers, focusing on the South and Northeast.
    - Regional Marketing: Target the South and Northeast, while expanding into underserved regions like the Southwest and Northwest.
    - Homeownership Loans: Offer flexible loan options for renters and mortgage holders, such as home improvement or refinancing loans.

Findings & Recommendations

- Impact of INT Rate

  - **Observation**: short-term loans (36 months), interest rates between 10% and 15% are most attractive, while rates over 20% have low demand. For long-term loans (60 months), rates between 15% and 20% are more profitable, though similar in loan amount to those with 10% to 15% rates.

  - **Recommendation:**

    - Promote Short-Term Loans: Focus on loans with interest rates between 10% and 15% for short-term borrowers.

    - Maximize Long-Term Profitability: Target long-term loans with rates between 15% and 20% to boost profitability.

    - Discontinue High-Interest Short-Term Loans: Revise or discontinue short-term loans with rates above 20% due to low demand.

Findings & Recommendations

- Intended Purpose
  - **Observation**: The most common loan purpose is debt consolidation, with 18,214 loans, followed by credit card repayment with 4,998 loans. Other purposes collectively account for 15,362 loans.
  - **Recommendation:**
    - Expand Debt Consolidation Products: Focus on promoting tailored debt consolidation loans to capture more market share.
    - Enhance Credit Card Repayment Offers: Offer competitive rates and terms for credit card debt consolidation.
    - Diversify Other Loan Offerings: Maintain flexible products for other loan purposes to meet diverse borrower needs.

Thanks