

# Loan Portfolio

69.43

Approved Loan Ratio

411

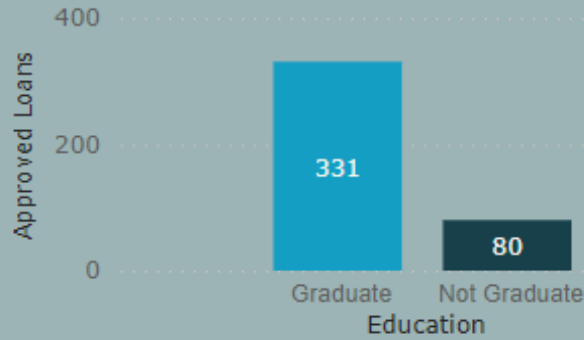
Total Approved Loans

\$14.43K

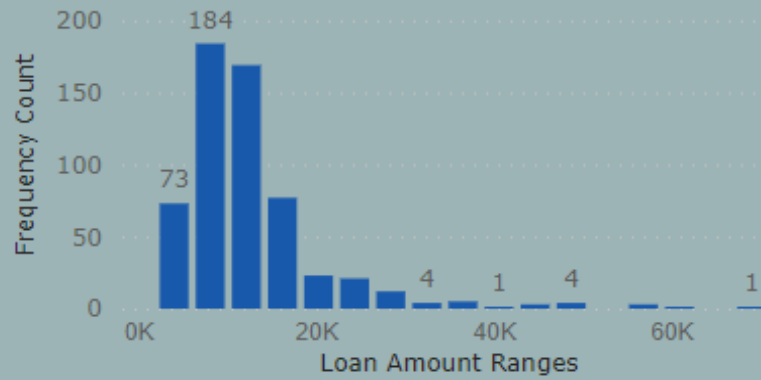
Average Approved Loan Amount

## Loan Approval by Education

Education Graduate Not Graduate

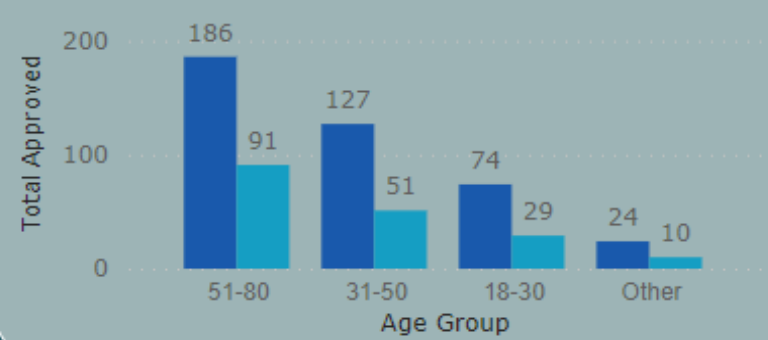


## Loan Amount Distribution

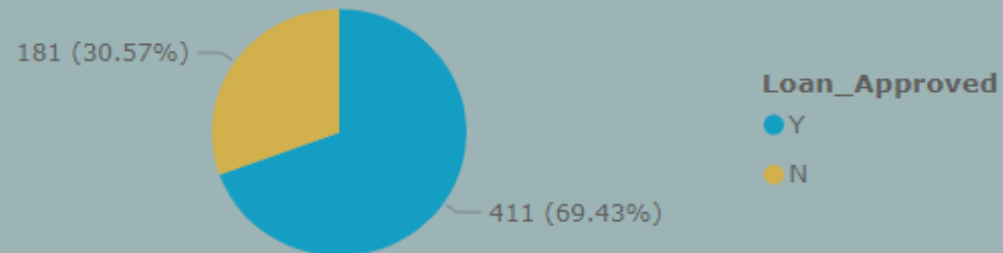


## Loan Approval by Age Group

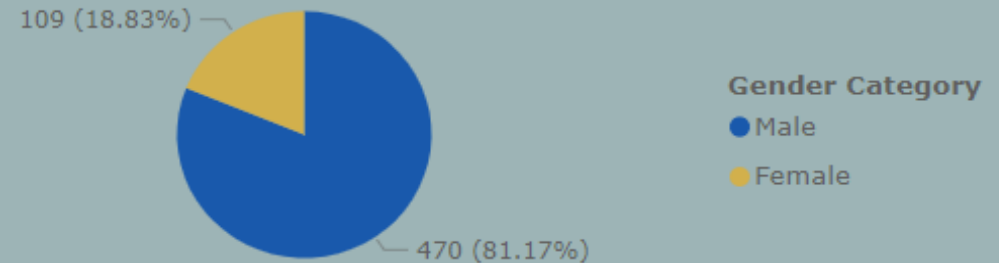
Approved Count Non-Approved Count



## Approved vs Non-approved Loans



## Loan Application by Gender



**69.43**

Approved Loan Ratio

**411**

Total Approved Loans

**\$14.43K**

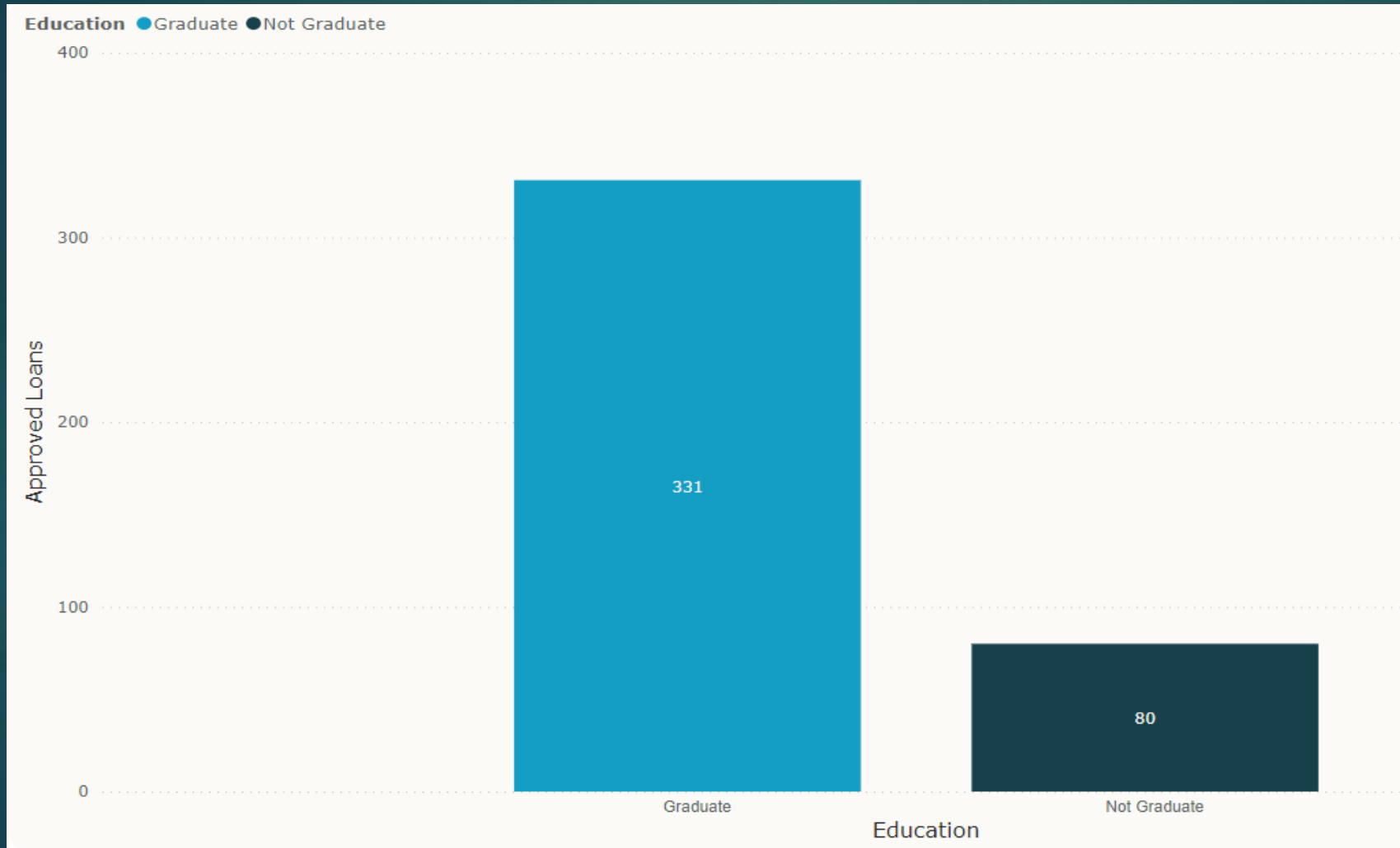
Average Approved Loan Amount

- ❖ Approved Loans Ratio: % of approved loans from total applications. Calculated as approved loans / total applications.

The loan approval ratio for members is around 69.43%, indicating that a significant portion of members have been approved for loans. This ratio could be further investigated to understand factors influencing approvals and to fine-tune lending strategies.

- ❖ Avg. Approved Loans: Average loan amount for approved loans. Calculated as total approved loan amount / number of approved loans.
- ❖ These metrics are essential for Sales to gauge approval effectiveness, total approvals, and average loan size.

# Insight 1: Loan Approval by Education Level



# Loan Approval by Education Level

## Chart: Stacked Bar Chart

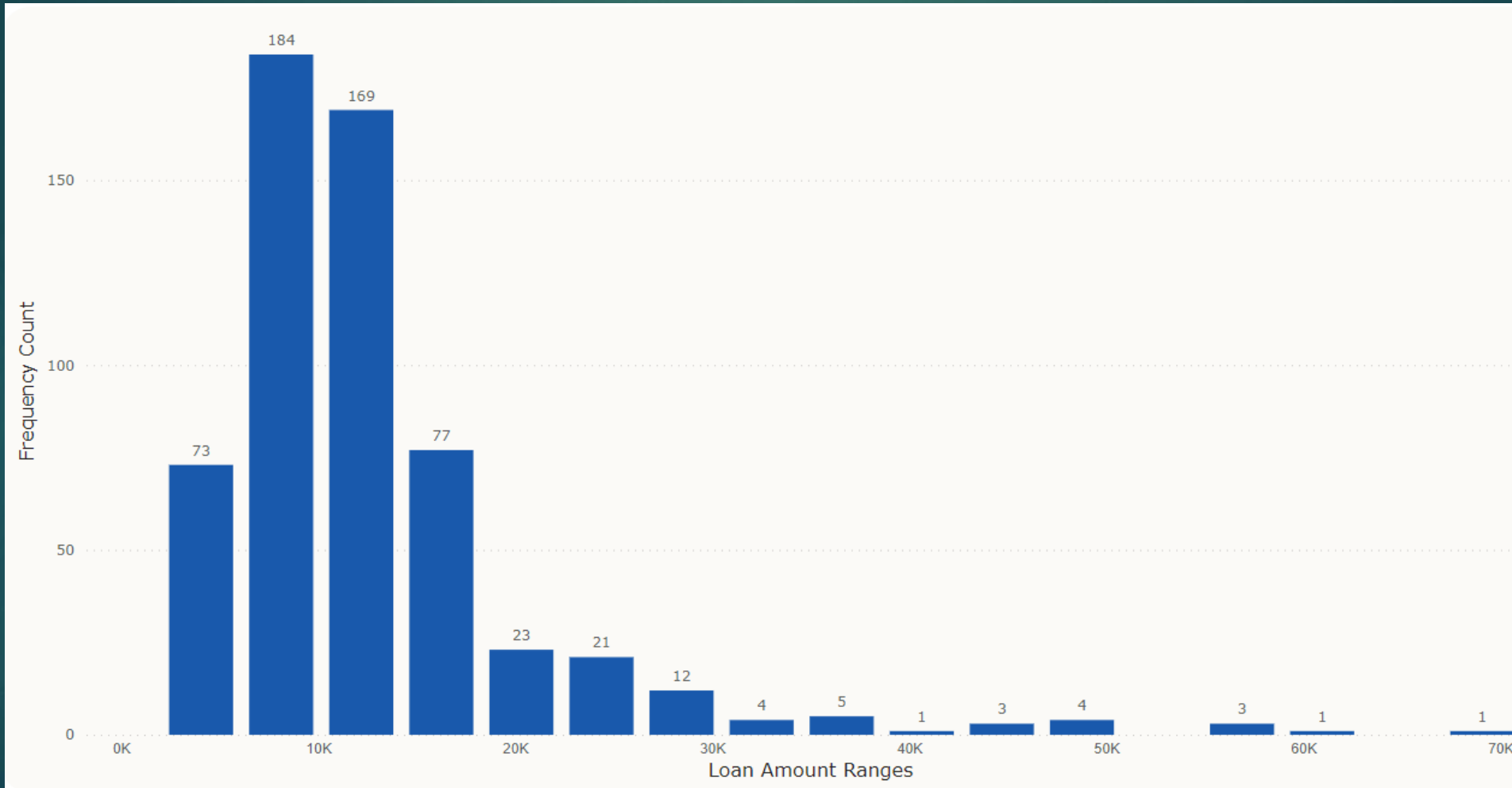
**Education as a Factor:** The data showcases a significant disparity in loan approval rates based on education level. Members with a graduate education tend to have a higher loan approval rate compared to those without a graduate degree. This observation suggests that educational attainment could influence members' financial stability and their ability to meet loan requirements.

Acknowledging the correlation between education and loan approval, Gulf Winds Credit Union can consider offering tailored financial products that align with members' education levels. For instance, specialized loan packages or financial planning services could be designed to cater to the unique needs of both graduate and non-graduate members.

Graduates may require larger loans for advanced degrees, home purchases, or entrepreneurial endeavors. Gulf Winds can offer personalized financial planning to guide members toward responsible borrowing and financial growth.

The insights gained from loan approval rates by education level can inform targeted marketing campaigns tailored to the needs and preferences of different segments.

## Insight 2: Loan Amount Distribution



# Loan Amount Distribution

## Chart: Histogram

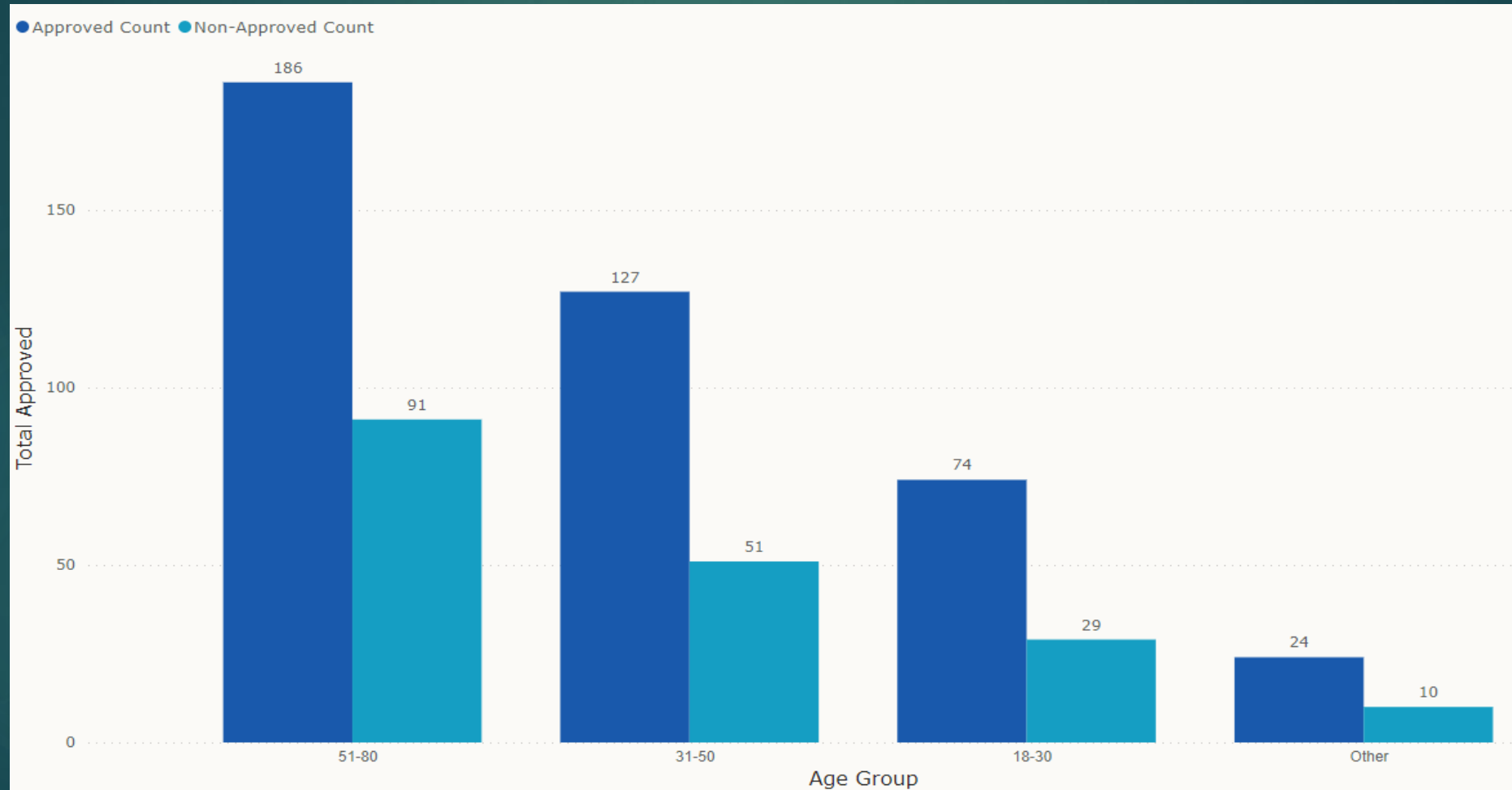
### **Explanation:**

The dataset showcases a diverse range of loan amounts, indicating that members have different financial requirements. Some members are seeking relatively smaller loans, while others are looking for larger amounts. This diversity suggests that Gulf Winds Credit Union's loan portfolio caters to a wide array of financial needs.

The availability of a wide range of loan amounts showcases Gulf Winds Credit Union's dedication to providing tailored financial solutions. By accommodating both small and large borrowing requirements, the credit union is well-equipped to serve members at various stages of their financial journey.

The diversity of loan amounts demonstrates that Gulf Winds Credit Union is managing lending risks effectively. By catering to different borrowing needs, the credit union minimizes concentration risks associated with focusing solely on specific loan categories.

## Insight 2: Loan Approval by Age Group



# Loan Approval by Age Group

This analysis sheds light on how age influences loan eligibility, repayment capacity, and financial aspirations.

Younger members (18-30) show varying loan approval rates. This segment might consist of students, recent graduates, and early-career professionals seeking loans for education, starting a business, or making significant purchases. Understanding their specific needs can guide the credit union's efforts to support young borrowers' financial growth.

Members in their prime earning years (31-50) tend to have higher approval rates. This aligns with their established financial stability, steady income sources, and potential assets. Loans for homeownership, education, and family expenses are common in this stage.

The older age group (51 and above) may require loans for retirement planning, health care, and financial support for family members. Approvals in this category can reflect the credit union's role in aiding members during life transitions.



# Recommendations:

Based on the analysis of approved and non-approved loans, the following strategies can help to enhance loan approval rates:

- ✓ **Loan Application Guidance:** Offer clear and comprehensive guidance to applicants about required documentation and the application process. Clarity in expectations can reduce errors and incomplete submissions.
- ✓ **Credit Score Assistance:** Collaborate with credit bureaus to provide applicants with guidance on improving their credit scores. Empowering applicants to enhance their creditworthiness can increase their chances of approval.
- ✓ **Targeted Marketing:** We can create marketing campaigns that focus on specific income ranges. For instance, we could offer higher loan amounts to members with higher incomes, possibly for investments or significant life events. This personalized approach could enhance member engagement.
- ✓ **Customized Loan Packages:** By considering factors like age, education, and income, we can design loan packages that cater to various member needs. This could lead to higher satisfaction rates and increased successful loan applications.
- ✓ **Process Optimization:** Continuously refine internal processes for evaluating loan applications. A streamlined process can lead to quicker responses, improving the applicant experience and approval rates.
- ✓ **Provide more information to customers.** The Sales team can provide customers with more information about the lending criteria and the process of getting a loan. This can help customers to understand their chances of getting a loan approved and to make informed decisions about whether to apply for a loan.

Implementing these recommendations can lead to better-prepared applicants, more informed decisions, and an increased likelihood of loan approvals.

# Additional recommendations

Recommendations for Gulf Winds to make the most of their member data:

- 1. Personalized Loan Offers:** Utilize member data to tailor loan offers based on individual financial behaviors and preferences. This targeted approach can lead to higher approval rates and increased member satisfaction.
- 2. Risk Assessment Enhancement:** Integrate external data sources to refine risk assessment models, ensuring more accurate lending decisions. This can minimize defaults and optimize the credit evaluation process.
- 3. Cross-Selling Strategies:** Identify members with successful loan histories and present them with opportunities for cross-selling other financial products like savings accounts or credit cards. This can drive member engagement and expand revenue streams.
- 4. Predictive Analytics for Loan Defaults:** Develop predictive models to identify potential loan default risks based on historical data and borrower behaviors. Early intervention strategies can be devised to mitigate default risks.
- 5. Fraud Detection and Prevention:** Utilize data analytics to detect unusual patterns or anomalies in loan applications, helping to prevent fraudulent activities and enhance security measures.
- 6. Continuous Learning and Training:** Use data insights to facilitate ongoing training for loan officers, enabling them to stay updated on evolving member preferences, lending regulations, and best practices.

# Tools used for this projects

- ❖ Python – Data exploration, cleaning and analysis
- ❖ Excel – Data cleaning and manipulation
- ❖ SQL - Helped me better understand the data
- ❖ PowerBi - Visualization
- ❖ PowerPoint – Presentation

- ❖ PowerBi Dashboard:

[https://app.powerbi.com/links/g0f8qDPbWb?ctid=5995a36e-76d3-4000-a572-f43ce77f6ce2&pbi\\_source=linkShare](https://app.powerbi.com/links/g0f8qDPbWb?ctid=5995a36e-76d3-4000-a572-f43ce77f6ce2&pbi_source=linkShare)

- ❖ Note: Python Code attached in the email