

Data to Decisions Qlik Journey through LendingClub Issued Loans Analysis (Qlik)

Business Problem:-

- The specific business problem revolves around the inadequacy of the current lending strategy, which is not sufficiently informed by comprehensive insights derived from LendingClub loan data. The institution struggles to assess borrower behavior and market dynamics effectively, resulting in challenges such as inaccurate risk identification, difficulties in predicting loan default rates, and the inability to dynamically adjust lending criteria to respond to evolving market conditions.

Business Requirements:-

- The business requirements involve the establishment of a robust data analytics framework that can extract meaningful insights from LendingClub issued loans data. This framework should enable the financial institution to gain a deep understanding of borrower behavior, identify high-risk segments, predict default rates accurately, and provide the necessary foundation for real-time adjustments to lending criteria. Additionally, the solution should be scalable, adaptable, and capable of integrating with existing systems to ensure seamless implementation.

DataSet Link:-

➤ <https://www.kaggle.com/datasets/husainsb/lendingclub-issued-loans>

Data contains all the meta information regarding the columns described in the CSV files

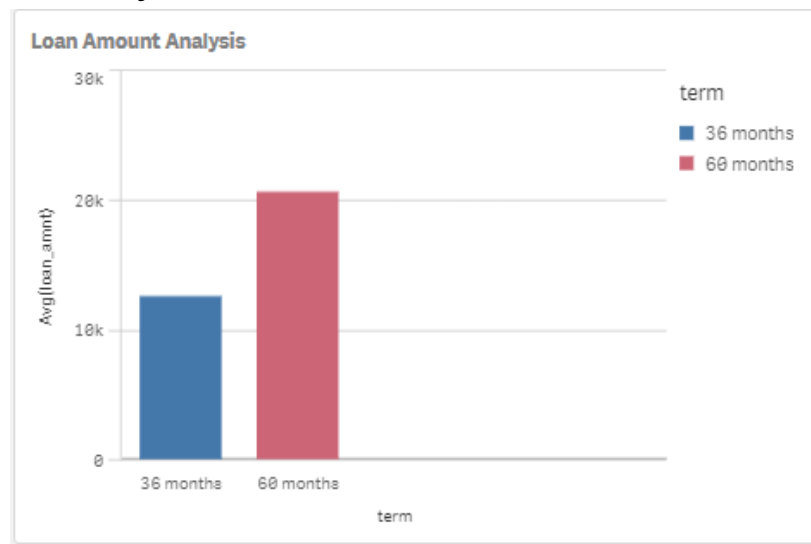
Column Description of the Dataset:

- member_id:Contains unique member id of the members
- loan_amnt:Contains the loan amount taken by members
- term:Contains the tenure for the loan_amount
- int_rate:Rate of Interest for the loan_amount
- grade:Grades of the members

Data Visualization

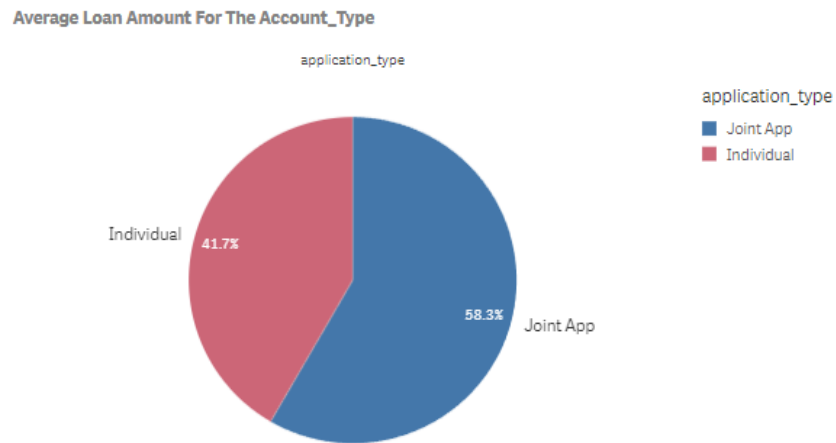
Data visualization is the process of creating graphical representations of data to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.

1)Loan Amount Analysis:-



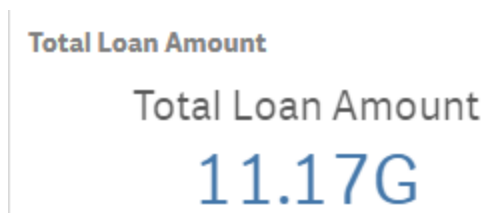
This visualization contains the average loan amount taken by members for the tenure such as 36 months or 60 months.

2)Average Loan Amount For The Account_Type:-

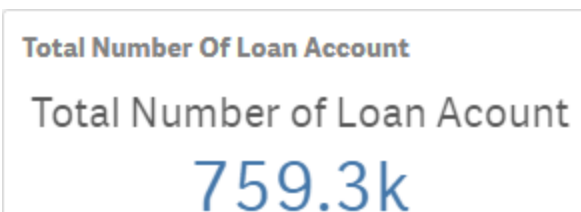


The pie chart displays the distribution of application types, with Joint Applications comprising a larger portion at 58.3%, compared to Individual Applications at 41.7%. This highlights a preference for Joint Applications. The visual emphasizes the predominance of Joint Applications in the dataset.

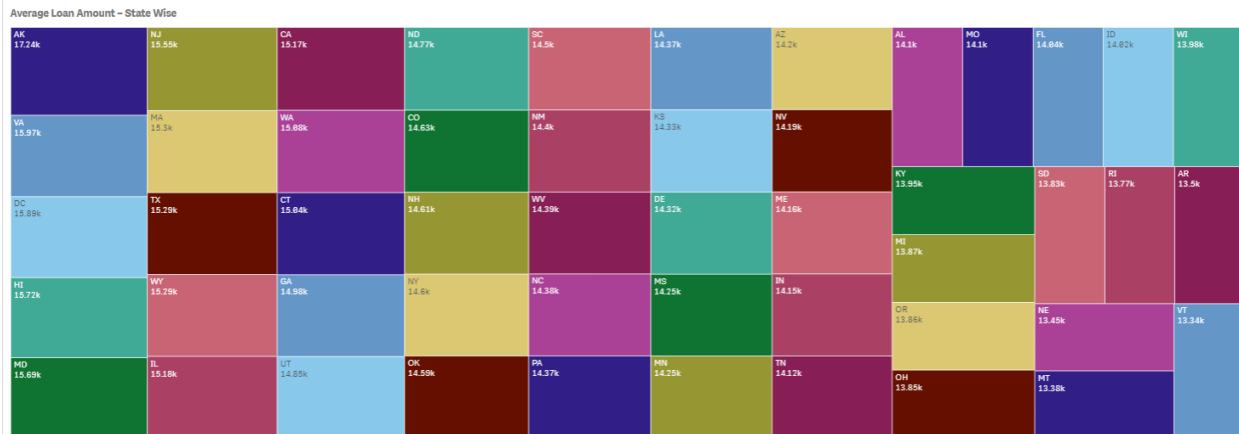
3)Total Loan Amount:-



4)Total Number Of Loan Account:-

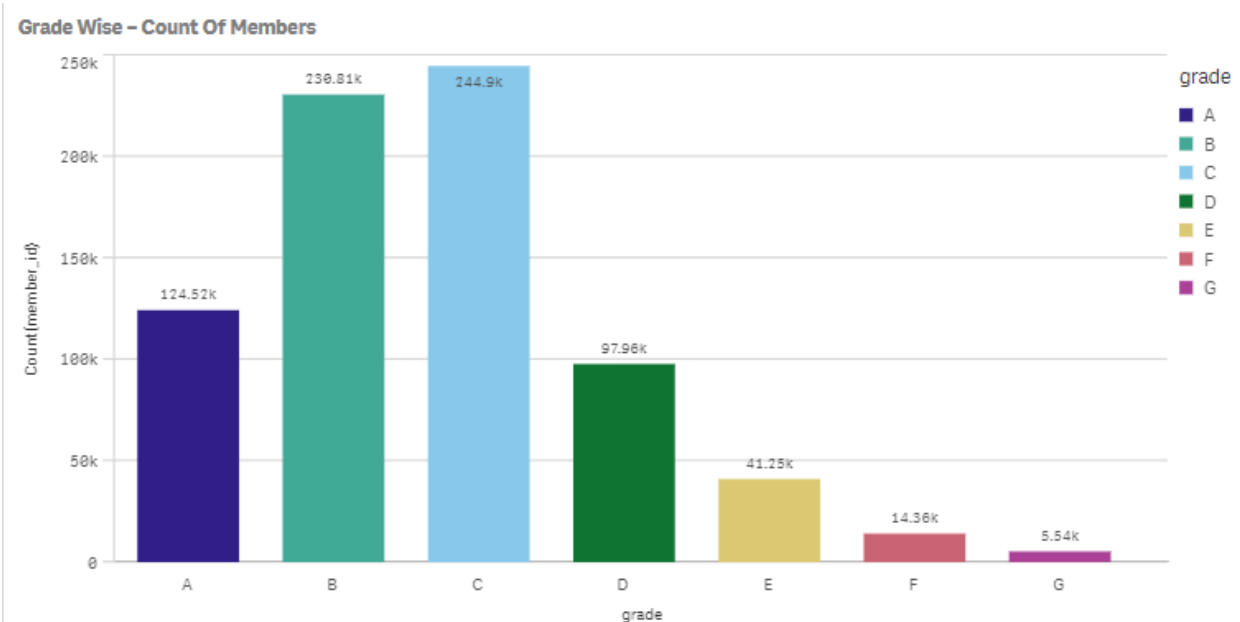


5)Average Loan Amount – State Wise:-

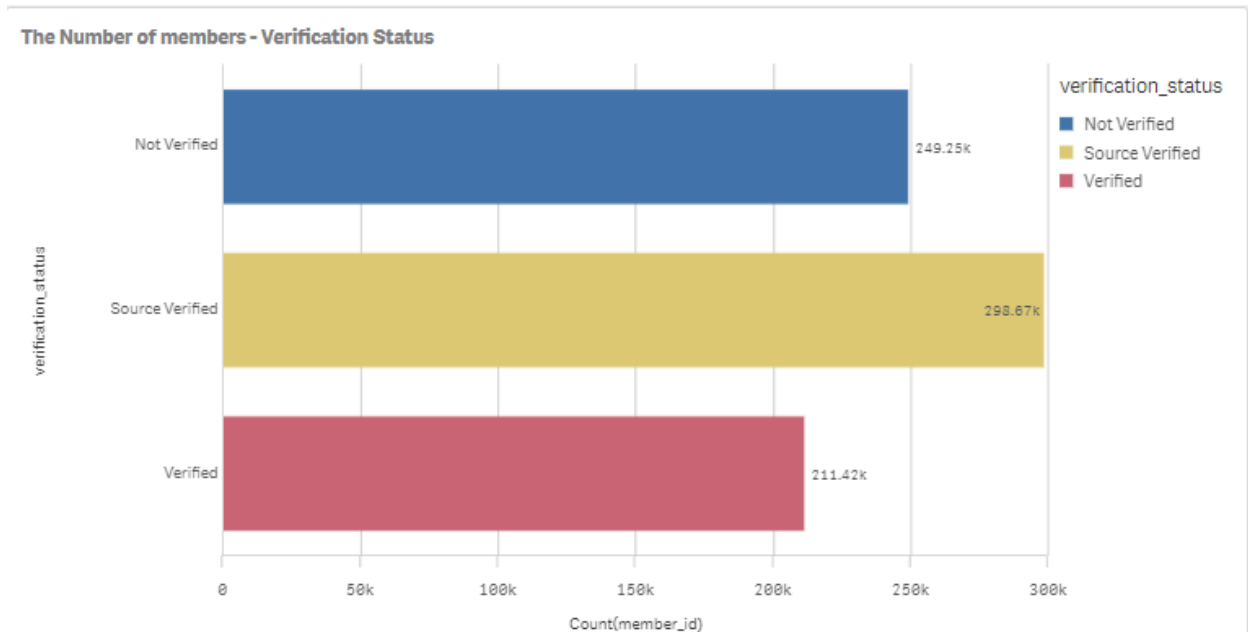


The chart gives us about the average loan amount state wise.

6)Grade Wise – Count Of Members:-

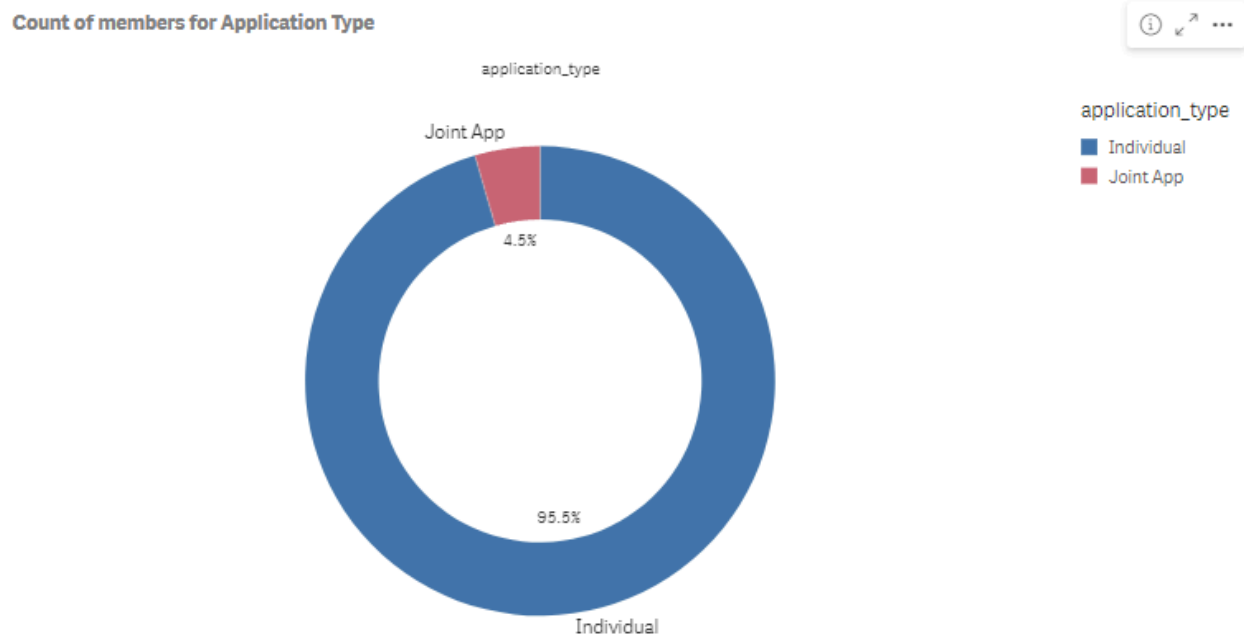


6)Verification Status:-



The bar tells about the verification status. In this source verification are happen more than the others.

7)Count of members for Account type:-



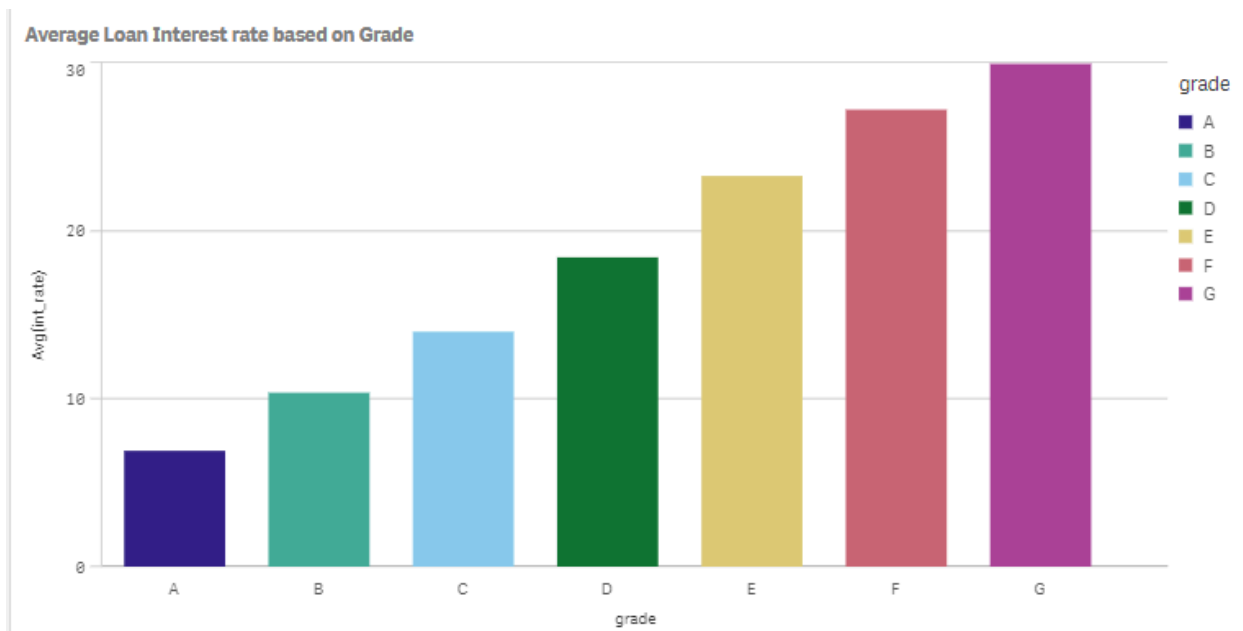
8)Average Loan Amount:-

Average Loan Amount

Avg(loan_amnt)

14.71k

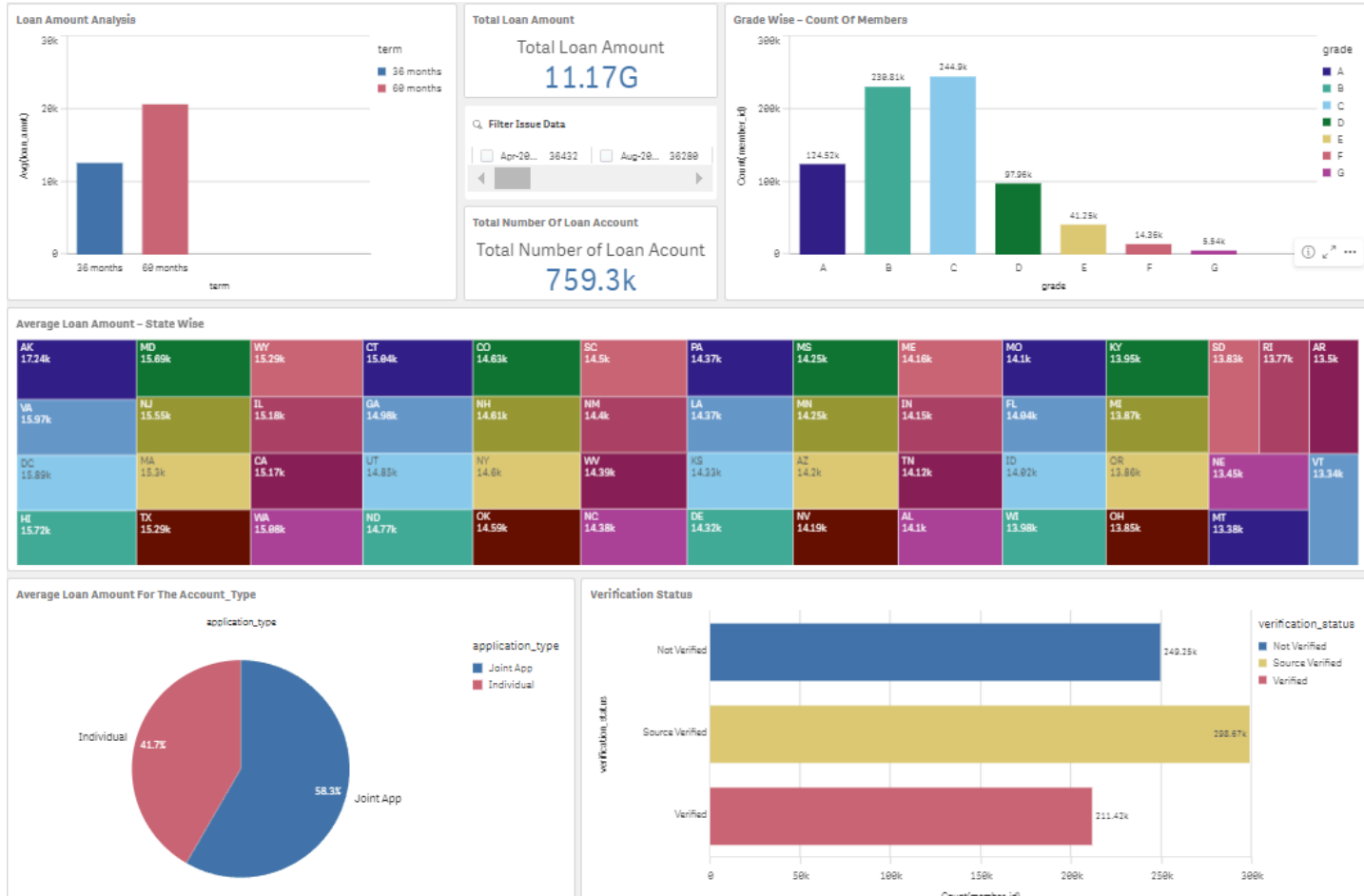
9)Average Loan Interest rate based on Grade:-



DASHBOARDS

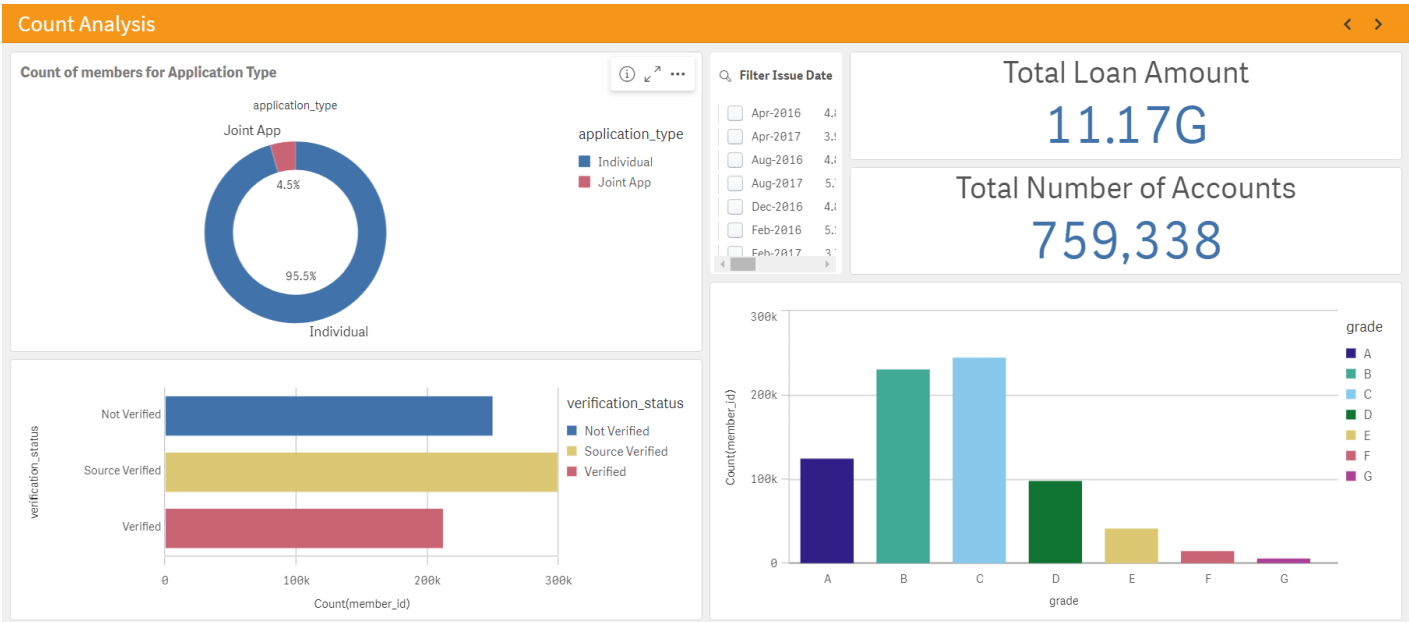
Dashboard 1: Average Loan Amount Analysis

<https://hnnwxia0u7qjbbz.sg.glikcloud.com/sense/app/bbbfab4f-6cc1-4fe5-9856-79c060f23ce2/sheet/EtDacR/state/analysis>



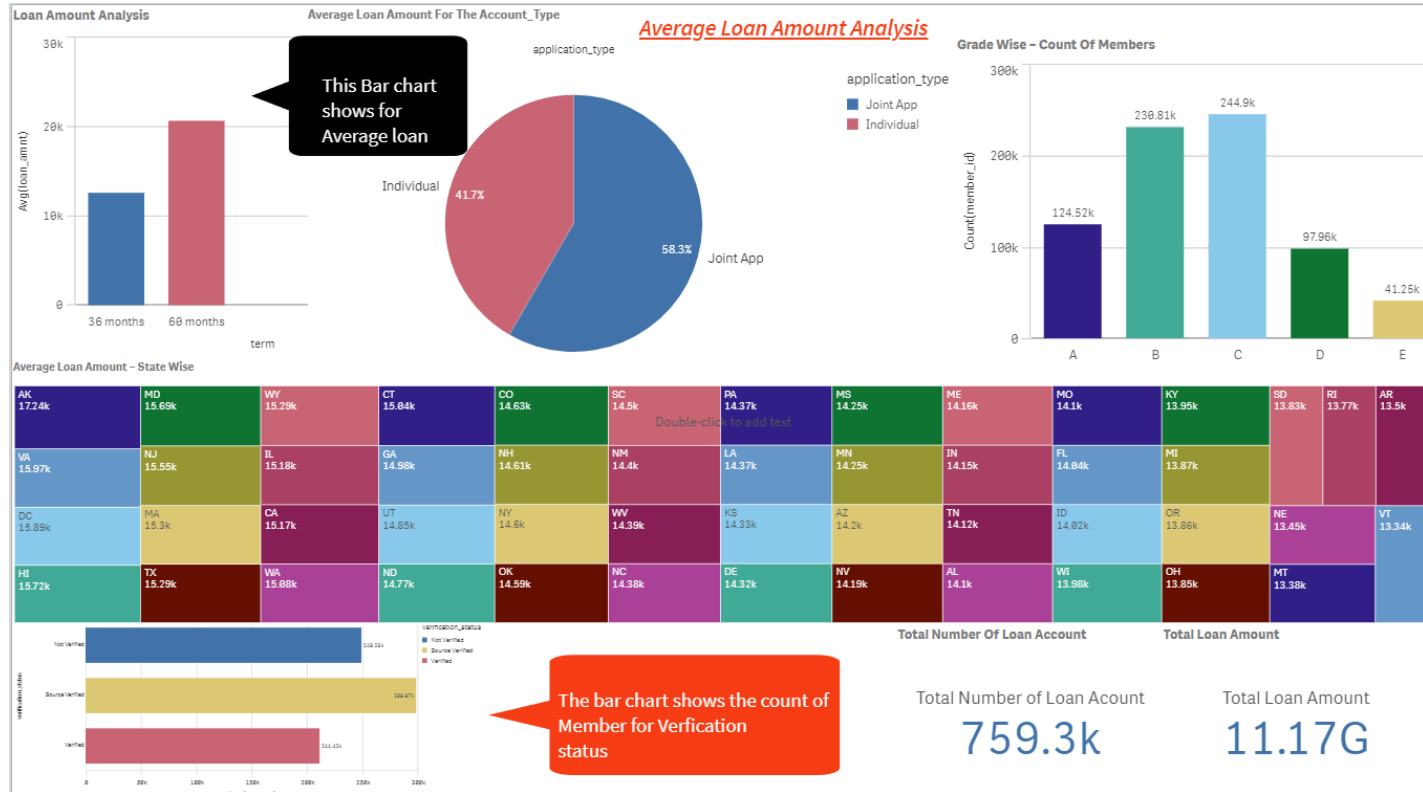
Dashboard 2: Count Analysis

<https://hnnwxia0u7qjbbz.sg.qlikcloud.com/sense/app/bbbfab4f-6cc1-4fe5-9856-79c060f23ce2/sheet/ZexYaV/state/analysis>



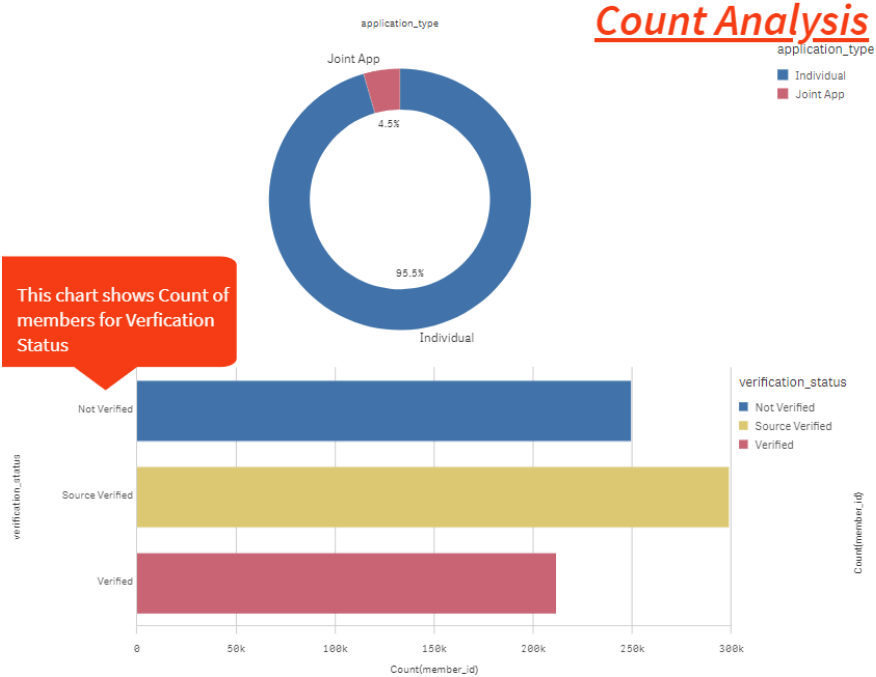
Design Of Story

1)



2)

Count of members for Application Type

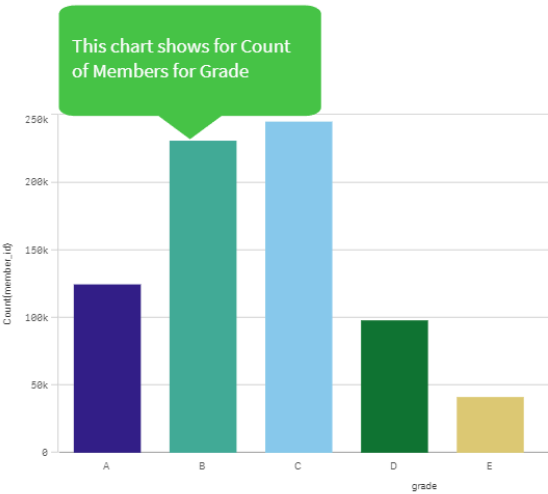


Total Number of Accounts

759,338

Total Loan Amount

11.17G



Data Loaded Amount

"Amount of Data Loaded" refers to the quantity or volume of data that has been imported, retrieved, or loaded into a system, software application, database, or any other data storage or processing environment. It's a measure of how much data has been successfully processed and made available for analysis, manipulation, or use within the system

Qlik

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Prepare

Data model viewer

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Analyze

Sheet

Narrate

Storytelling

lc_2016_2017.csv

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lc_2016_2017

id

member_id

Loan Amount Analysis

funded_amnt

funded_amnt_inv

term

int_rate

installment

grade

sub_grade

emp_title

emp_length

home_ownership

annual_inc

verification_status

issue_d

loan_status

pymnt_plan

desc

purpose

title

zip_code

addr_state

dti

delinq_2yrs

earliest_cr_line

inq_last_6mths

mths_since_last_delinq

mths_since_last_record

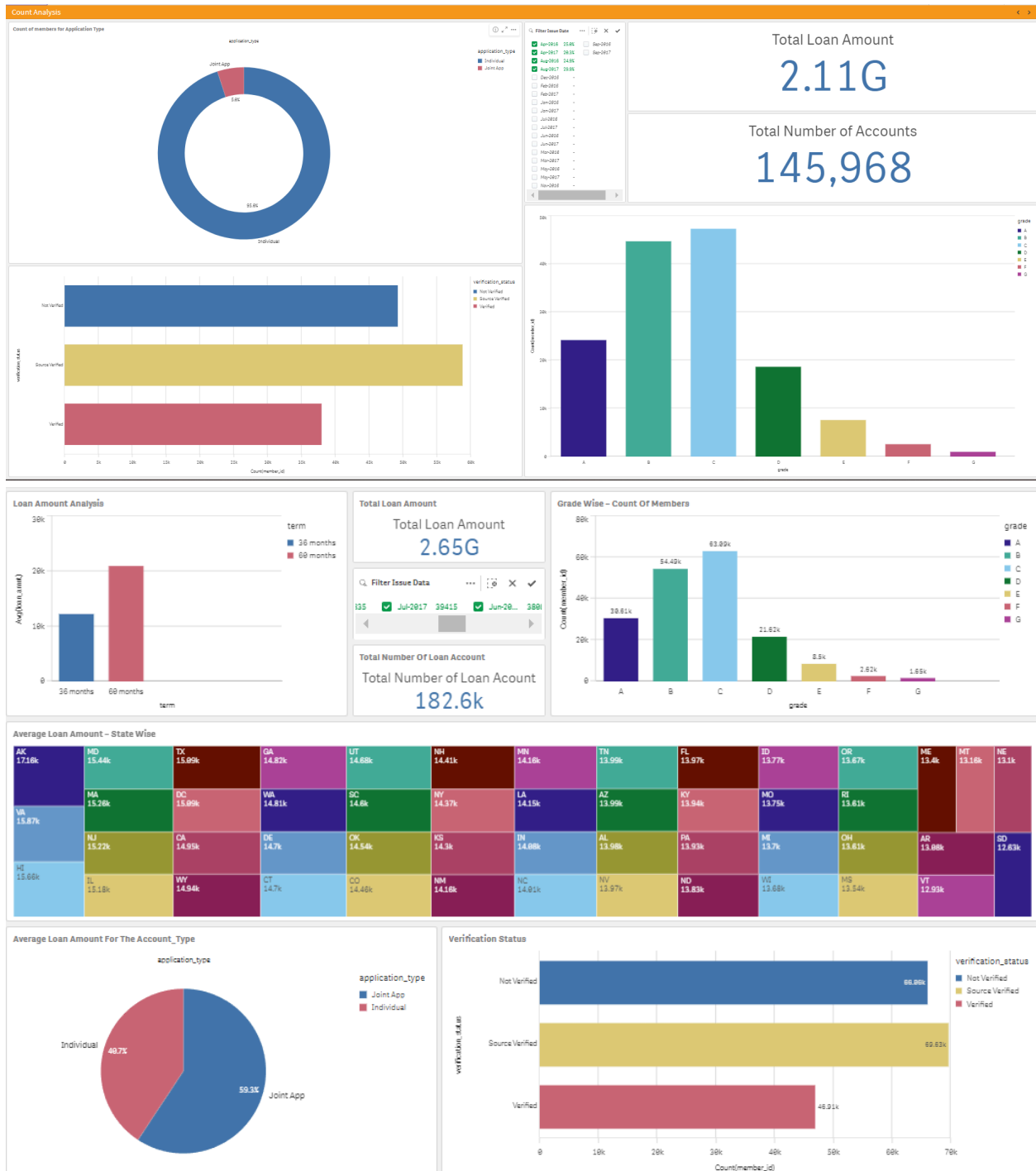
open_acc

▲ Preview

revol_util
total_acc
initial_list_status
out_gmnp
out_gmnp_inv
total_pymnt
total_pymnt_inv
total_rec_gmnp
total_rec_int
total_rec_late_fee
recoveries
collection_recovery_fee
last_pymnt_d
last_pymnt_amnt
next_pymnt_d
last_credit_pull_d
collections_12_mths_ex_med
mths_since_last_major_derog
policy_code
application_type
annual_inc_joint
dti_joint
verification_status_joint
acc_now_delinq
tot_coll_amnt
tot_cur_bal
open_acc_6m
open_il_12m
open_il_24m
mths_since_rent_il
total_bal_il
il_util
open_rev_12m
open_rev_24m
max_bal_bc
sl_util
total_rev_hi_lim
inq_fi
total_loa_il
inq_last_12m

Utilization Of Filters

"Utilization of Filters" refers to the application or use of filters within a system, software application, or data processing pipeline to selectively extract, manipulate, or analyze data based on specified criteria or conditions. Filters are used to narrow down the scope of data, focusing only on the relevant information that meets certain predefined criteria.



Conclusion:-

The project successfully addressed the business problem by establishing a robust data analytics framework that offers deep insights into borrower behavior and loan dynamics. The visualizations and analyses conducted provide a strong foundation for improving risk assessment, predicting loan defaults, and dynamically adjusting lending criteria. As a result, the financial institution is better equipped to navigate the complexities of the lending market, reduce risk, and optimize its lending strategy for improved performance and profitability.

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