LendingClub-Loans-Analysis-Qlik (Project Report)

1. Introduction

1.1 Overview

This project aims to enhance our lending strategy using Qlik Cloud, a leading analytics solution, to analyze and visualize LendingClub loan data. The objective is to improve risk assessment, predict loan defaults more accurately, and dynamically adjust lending criteria based on market trends.

1.2 Purpose

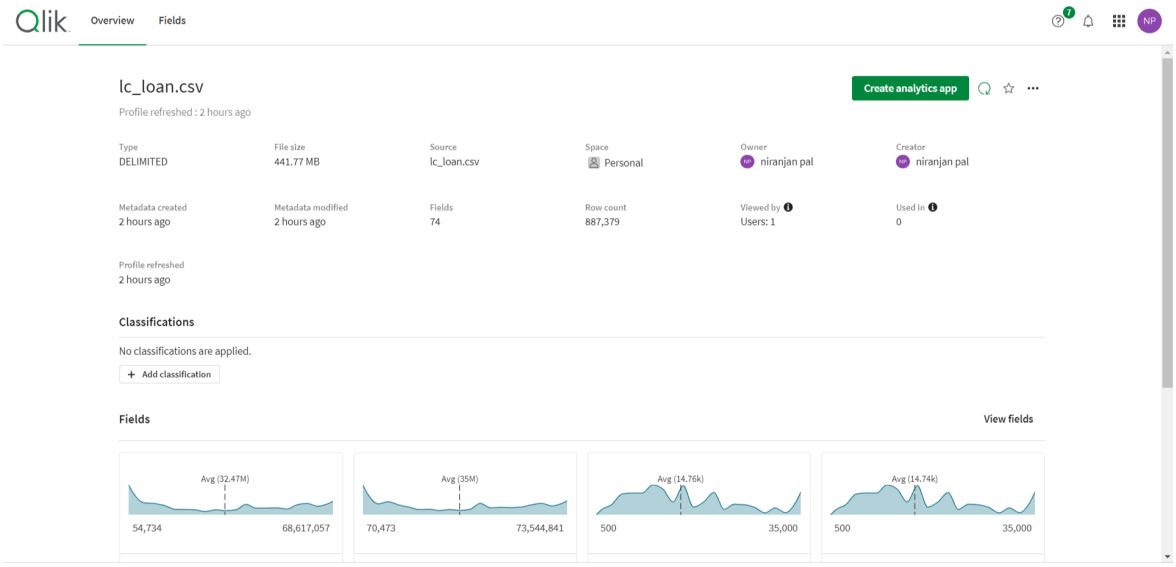
The project aims to refine our lending strategy by:

- Improving borrower risk identification.
- Enhancing prediction accuracy of loan defaults.
- Enabling dynamic adjustments to lending criteria in response to market changes.

1.3 Technical Architecture

The project uses Qlik Cloud for data analytics and visualization, including:

- **Data Collection**: Importing datasets into Qlik Cloud.
- **Data Processing**: Preparing data within Qlik Cloud.
- **Visualization**: Creating interactive dashboards in Qlik Cloud.



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2. Define Problem / Problem Understanding

2.1 Specify the Business Problem

The current lending strategy faces challenges such as:

- Inaccurate risk identification.
- Difficulty predicting loan defaults.
- Lack of dynamic adjustment to lending criteria based on market changes.

2.2 Business Requirements

To tackle these challenges, the project needs:

- In-depth data analysis to understand borrower behavior.
- Visual insights for predicting risk and defaults.
- Integration of insights into the lending strategy for dynamic adjustments.

2.3 Literature Survey

A literature survey reviewed:

- Data analysis methods in lending.
- Predictive modeling techniques for loan defaults.
- Case studies on adaptive lending strategies.

3. Data Collection

3.1 Collect the Dataset

The dataset includes:

- Loan amounts
- Interest rates
- Borrower demographics
- Repayment statuses

3.2 Connect Data with Qlik Cloud

The dataset was uploaded to Qlik Cloud for analysis and visualization.

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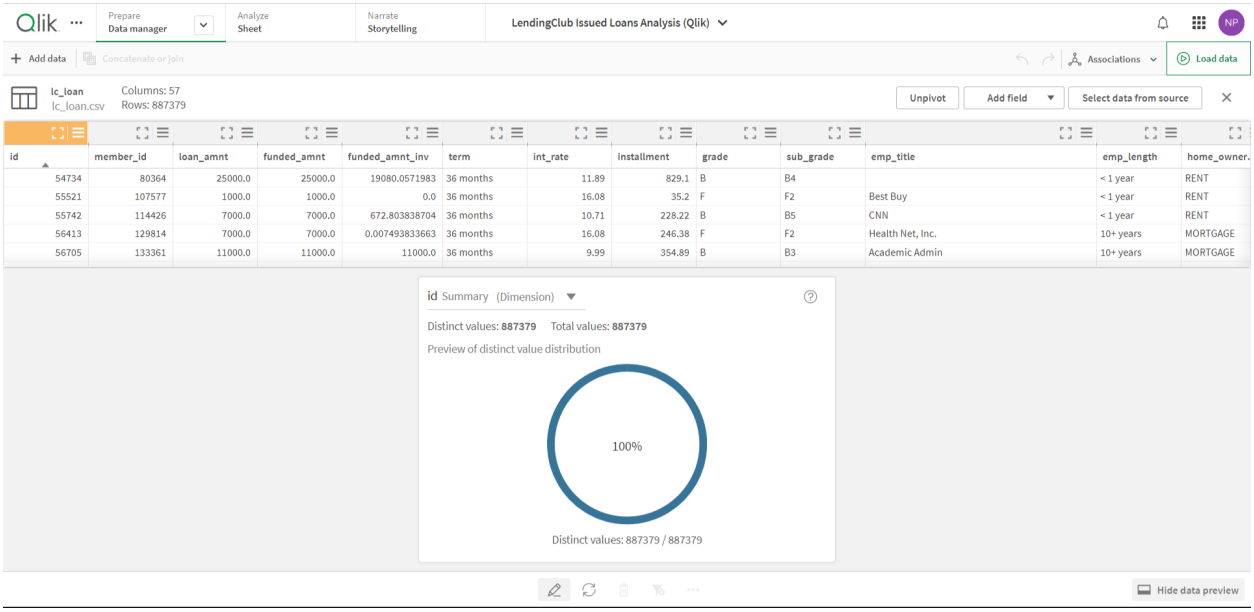
4. Data Preparation

4.1 Prepare the Data for Visualization

Data preparation steps:

- Cleaning to handle missing values and outliers.
- Transforming data for consistency.
- Creating calculated fields for analysis.



5. Data Visualizations

5.1 Visualizations

In Qlik Cloud, various visualizations were created:

- **Treemaps**: Showing average loan amounts by state.
- **Pie Charts**: Displaying account types distribution.
- **Bar Charts**: Illustrating loan statuses, grades, and verification statuses.

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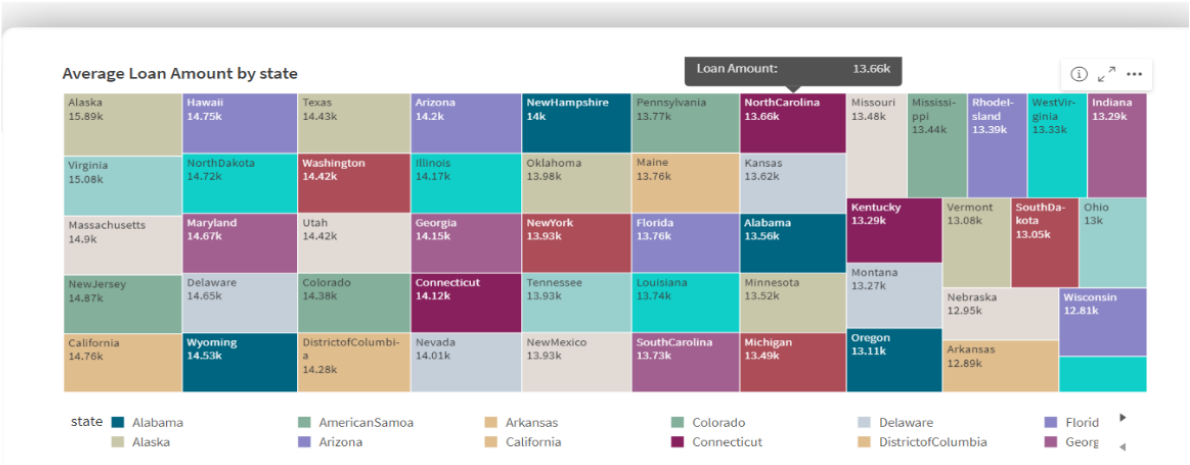
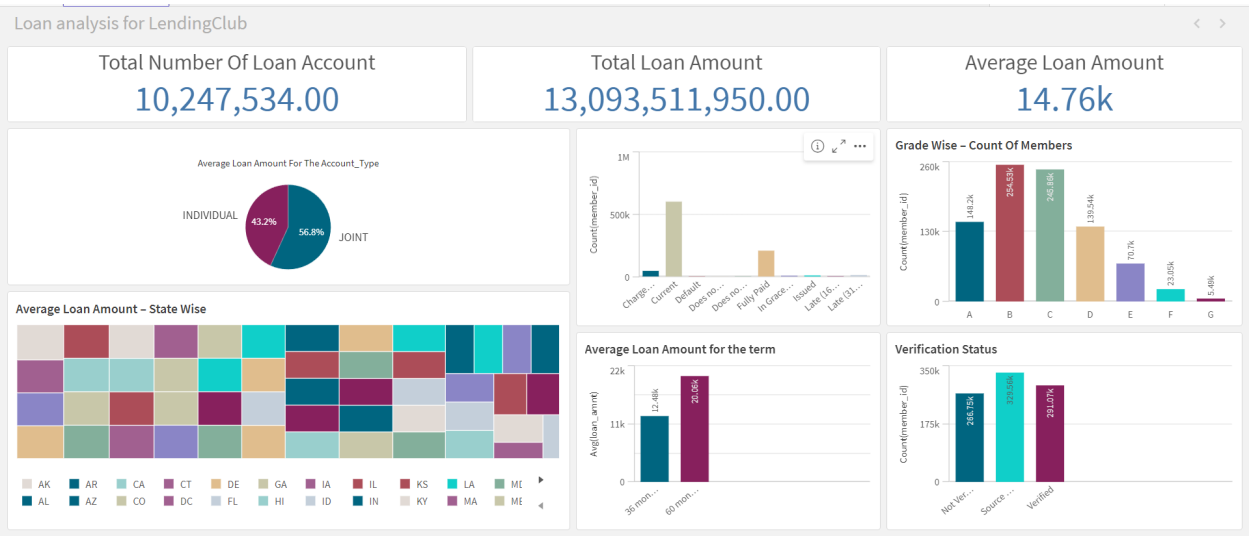


6. Dashboard

6.1 Responsive and Design of Dashboard

The dashboard in Qlik Cloud features:

- Dynamic filters for data exploration.
- Summarized metrics for quick insights.
- Interactive charts and graphs for detailed analysis.



7. Report

LendingClub-Loans-Analysis-Qlik (Project Report)

7.1 Report Creation

The report includes:

- Data collection and preparation details.
- Key insights from data analysis.
- Visualizations and their interpretations.
- Recommendations for lending criteria adjustments.

8. Performance Testing

8.1 Amount of Data Rendered

Performance testing ensured the dashboard handles data volume effectively.

8.2 Utilization of Data Filters

Testing ensured data filters function efficiently for effective data exploration.

Conclusion

Leveraging Qlik Cloud, this project successfully enhanced our lending strategy by improving risk assessment, prediction accuracy, and dynamic adjustment capabilities, providing actionable insights for continuous improvement.