DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

VAAGDEVI ENGINEERING COLLEGE

Warangal

CERTIFICATE

This is to certify that the project report entitled “Future loan Eligibility prediction analytics by using cognos submitted by K.navya bearing **18UK1A0591** is partial fulfillment of the requirements for the award of the degree in Bachelor of Technololgy in Computer Science & Engineering during the academic year 2018-2022

Gudie	Head of the Department
M.Pavan Kumar	Dr. R Naveen Kumar
Professor,Dept. of cse	Prof & Head, Dept of CSE

External Examiner

ACKNOWLEDGMENT

We express our gratitude to our principal **Dr.P.Prasad Rao,** who permitted us to carry the project work as part of the academics

We would like to thank **DR.R.Naveen Kumar**,Head of the Department (CSE) for his support and encouragement in completing our project.We would like to express our gratitude to our project guide **MR.Pavan Kumar** ,professor(CSE) for his support and encouragement in completing our major project successfully.

We would also express our sincere thanks to all the staff members of Vaagdevi Engineering college,for their kind cooperation and timely help during our academics carrer.

Finally,we wish to take this opportunity to express our deep gratitude to our family members and all the people who have extended their cooperation in various ways during our project work

INDEX

ABSTRACT

Dream Housing Finance company deals in all home loans. They have a presence across all urban, semi-urban, and rural areas. Customer – First applies for a Home Loan, after that company validates the eligibility by building own model to predict the eligibility. Company wants to automate the Loan Eligibility Process in a real time scenario with the detail provided while applying application for home loan. We will try to build a model using data from loan application

Future loan eligibility prediction analytics using IBM Cognos

A project Report submitted to

Jawaharlal Nehru Technology University,Hyderabad

In partial fullfillment for the requirement for the award of degree of

Bachelor of Technology

In

Computer Science and Engineering

By:

K.Navya **18UK1A0591**

Under the Guidance of

Pavan Kumar

Professor,Dept.of CSE

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

VAAGDEVI ENGINEERING COLLEGE

Affiliated to JNTUH, Hyderabad Bollikunta, Warangal(T.S)

INTRODUCTION:

a. Overview:

Dream Housing Finance company deals in all home loans. They have a presence across all urban, semi-urban, and rural areas. Customer – First applies for a Home Loan, after that company validates the eligibility by building own model to predict the eligibility. Company wants to automate the Loan Eligibility Process in a real time scenario with the detail provided while applying application for home loan. We will try to build a model using data from loan applications.

b. Purpose:

Predicting loan defaulters is an important process of the banking system as it **directly affects profitability**. However, loan default data sets available are highly imbalanced which results in poor performance of the algorithms

LITERATURE SURVEY

2.1 Existing Problem:

Credit scoring has become an essential tool in the highlycompetitive financial world, which has brought more focustowards research on credit risk assessment in the recent years. Due to the high demand and reliability offinancial institutes on loan lending, there is a significantdemand for further improvements of the models for creditscoring. There have been a multitude of techniques
which were used to assign credit scores and much researchhas been done on the topic throughout the years. Unlikebefore, where the initial models depended on professionalopinions for assessing the loan worthiness of an individual, recently focus has shifted towards applying data visualization charts for creditscoring and risk assessment

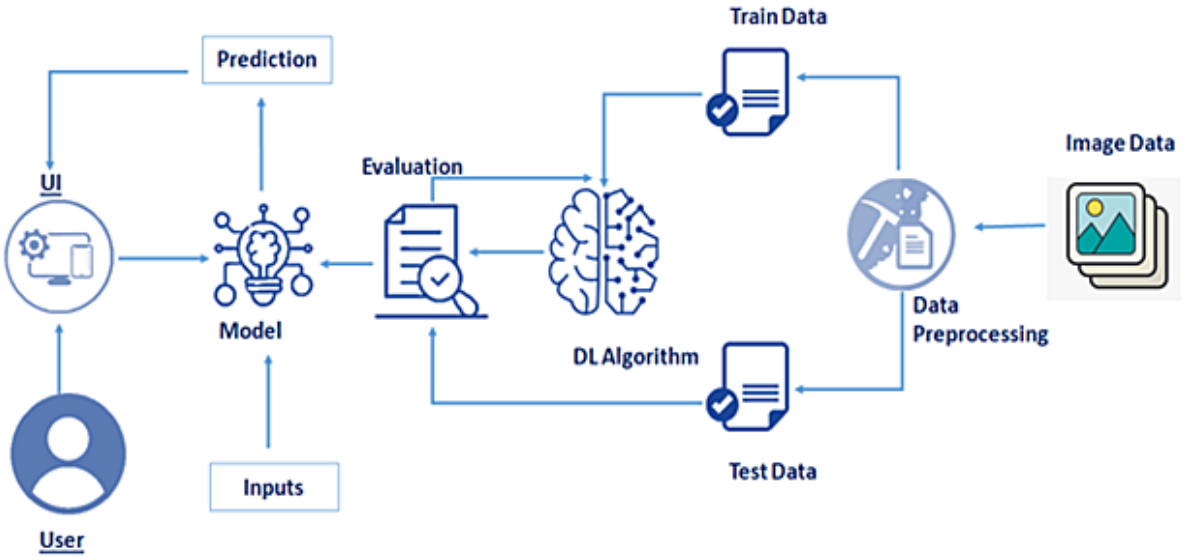
2.2Proposed Solution:

IBM Cognos analytics dashboard can end up with the best solution for every visualization problem. So here we are going to use the rich set of IBM analytics dashboard to Visualize the data in easy way.

By using the Visualization in dashboard we can analyze the any analysis the any data.

THEORTICAL ANALYSIS:

3.1 Block Diagram:



3.2 Hardware/software specifications

Software specifications:

REQUIREMENT	SPECIFICATION
IBM ACCOUNT	You must have an account in IBM prior to begin.
IBM cognos analytics dashboard	1. Contains Different Visualization 2. One should Launch the cognos analytics dashboard
Web browser	For all Web browsers, the following must be enabled: ● cookies JavaScript

Hardware Specifications:

REQUIREMENT	SPECIFICATIONS
Operating system	Microsoft Windows UNIX Linux®
Processing	Minimum: 4 CPU cores for one user. For each deployment, a sizing exercise is highly recommended.
RAM	Minimum 8 GB.
Operating system specifications	File descriptor limit set to 8192 on UNIX and Linux
Disk space	A minimum of 7 GB of free space is required to install the software.

EXPERIMENTAL INVESTIGATIONS:

Analysis or the investigation made while working on the solution:
While working on the solution we investigated on future loan eligibility prediction analytics, IBM cloud, IBM Watson studio, IBM cognos service, Cloud Object Storage. The key role on investigation is collection of dataset.

IBM Cloud Account:

IBM Acquired soft layer, a public cloud platform, to serve as the foundation for its IaaS offering. In October 2016, IBM rolled the soft layer brand under its Blue mix brand of PaaS offerings, giving users to access both IaaS and PaaS resources from a single console. IBM cloud provides a full-stack, public cloud platform with various products in the catalog, including options for compute, storage, networking, end to end developer solutions for app development, testing and deployment, security databases, and cloud native services.

Creating the IBM cloud account by going to the IBM cloud login page and click create on IBM cloud account. Enter our IBM id and an ID is created based on the email that we enter. Completing the remaining fields with our information and click create account by this the account is created.

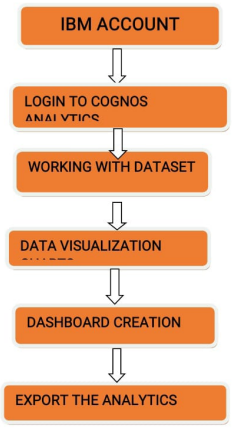
Dataset collection:

The data collection on future loan eligibility prediction analytics by:

- Articulate the problem early.
- Establish data collection.
- Check our data quickly.

- Reduce data.
- Take the required fields of data

FLOW CHART:



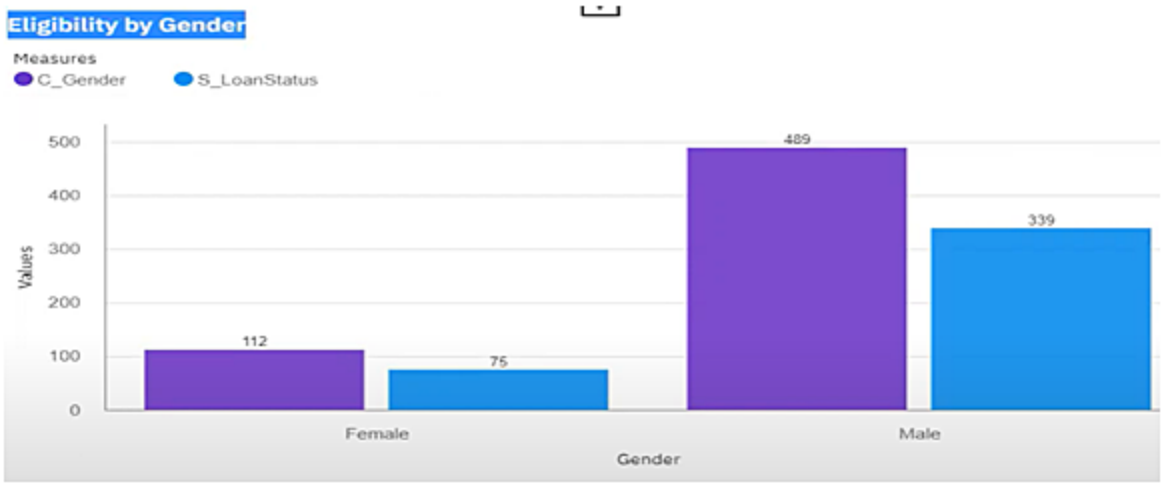
RESULTS:

Final output of the project:

Data visualization charts:

Eligibility By Gender:

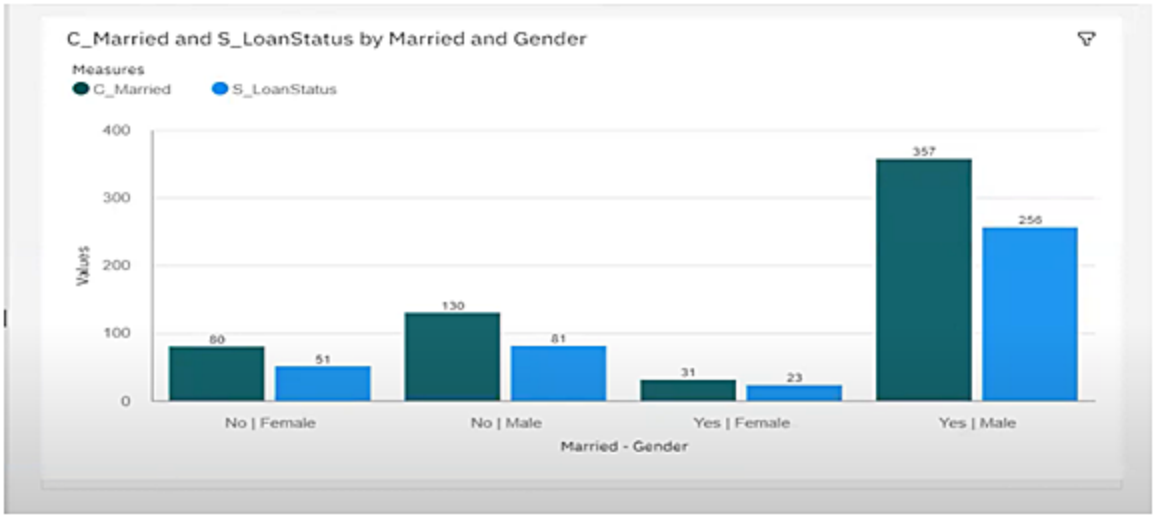
Distribution of Loan Eligibility Status based on Gender.
Here we will analyze the loan eligibility based on gender.



Eligibility By Marital Status:

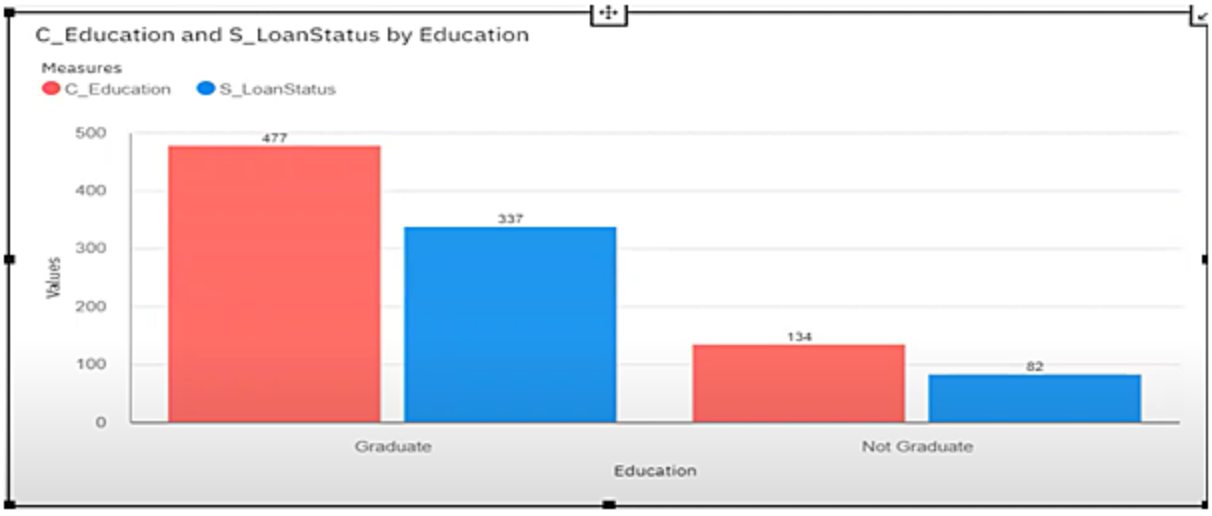
Distribution of Loan Eligibility Status based on Marital Status and Gender.

Here we will analyze the loan eligibility based on marital status and Gender.



Eligibility By Educational Status:

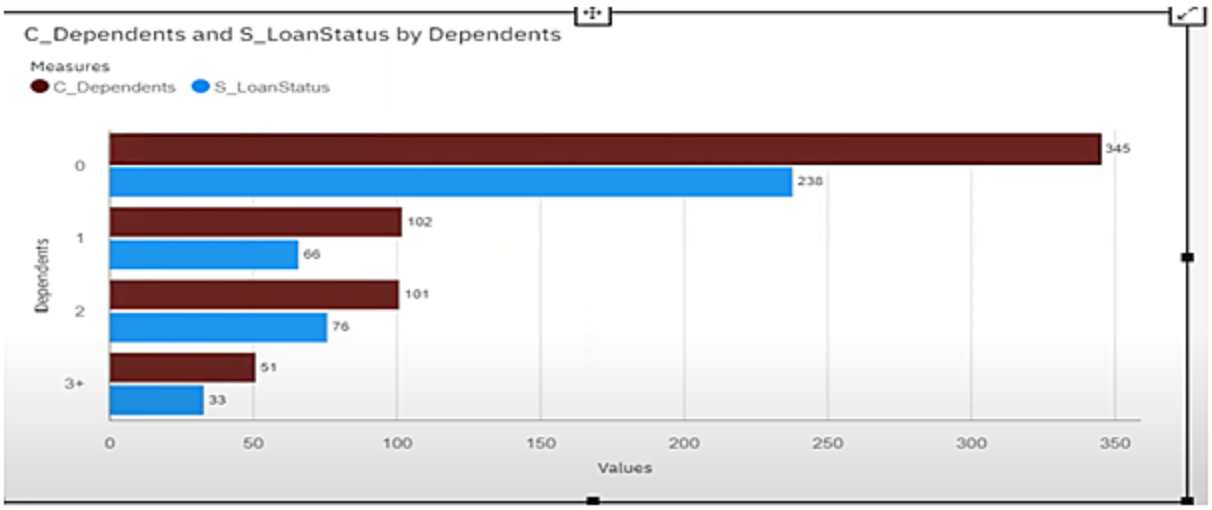
Distribution of Loan Eligibility by Educational Status.



Eligibility Based On Dependents

Distribution of Loan Eligibility by Number of Dependents.

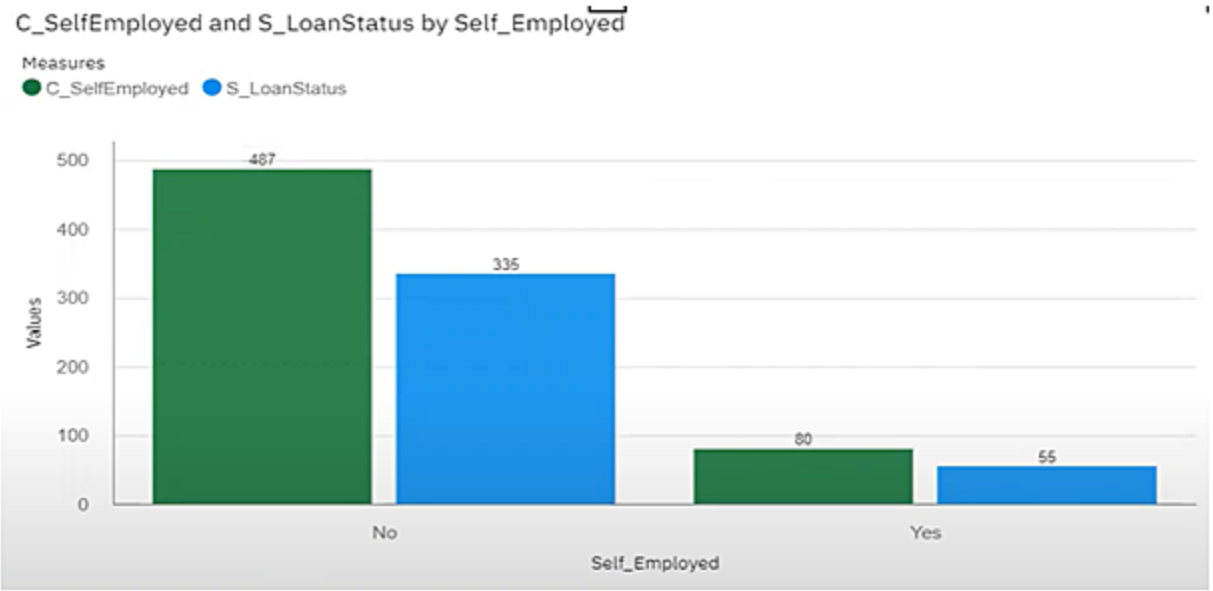
Here we will analyze the loan eligibility based on number of dependents.



Eligibility Based On Self Employment Status.

Distribution of Loan Eligibility based on Self-Employment status.

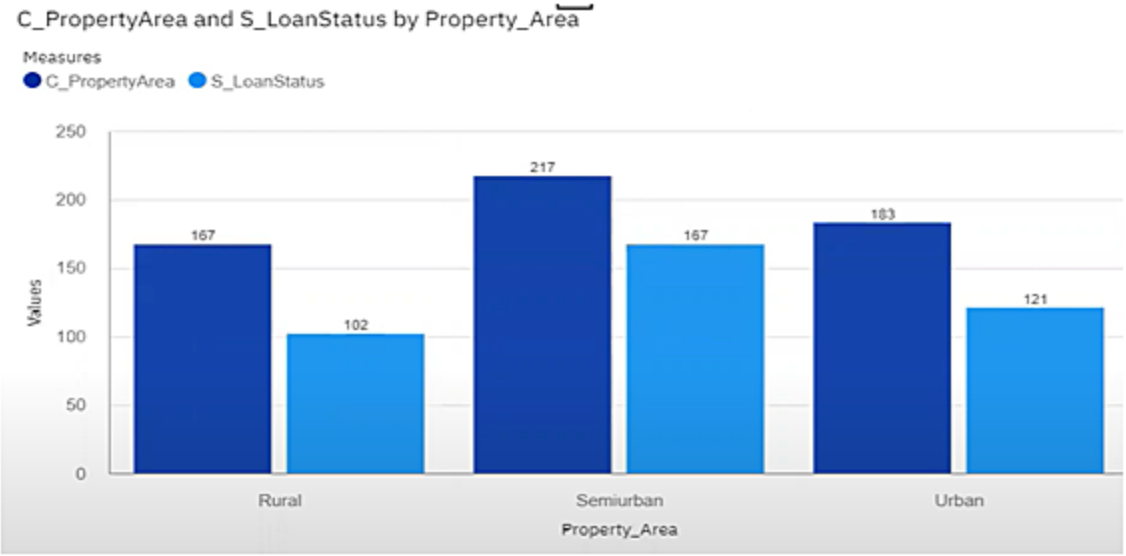
Here we will analyze the loan eligibility based on Self Employment Status.



Eligibility Based On Property Area

Distribution of Loan Eligibility based on Property- Area.

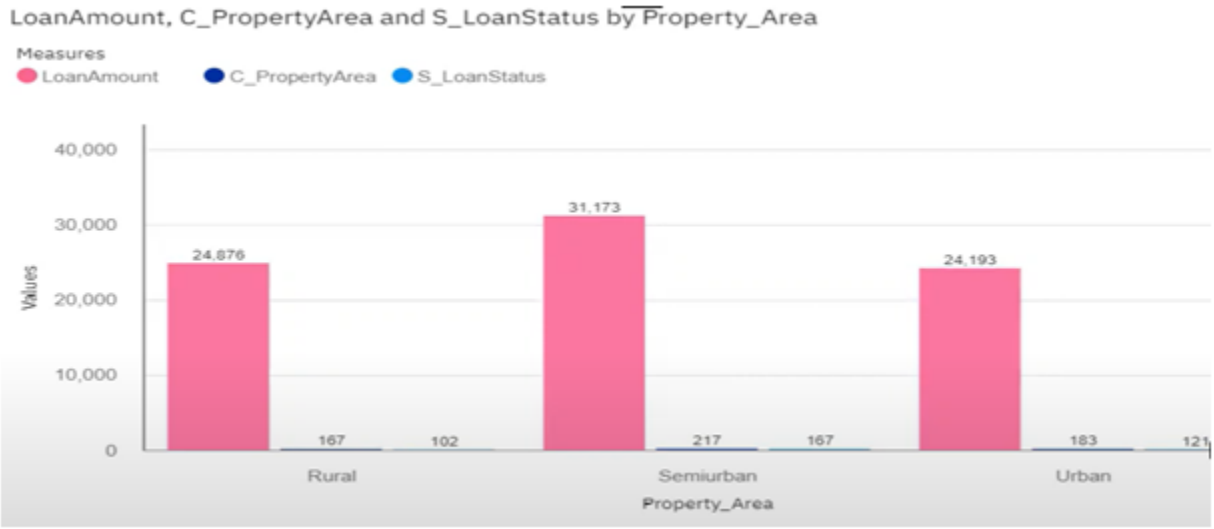
Here we will analyze the loan eligibility based on Property Area.



Eligibility Based On Property Area And Loan Amount

Distribution of Loan Eligibility based on Property Area and Loan Amount

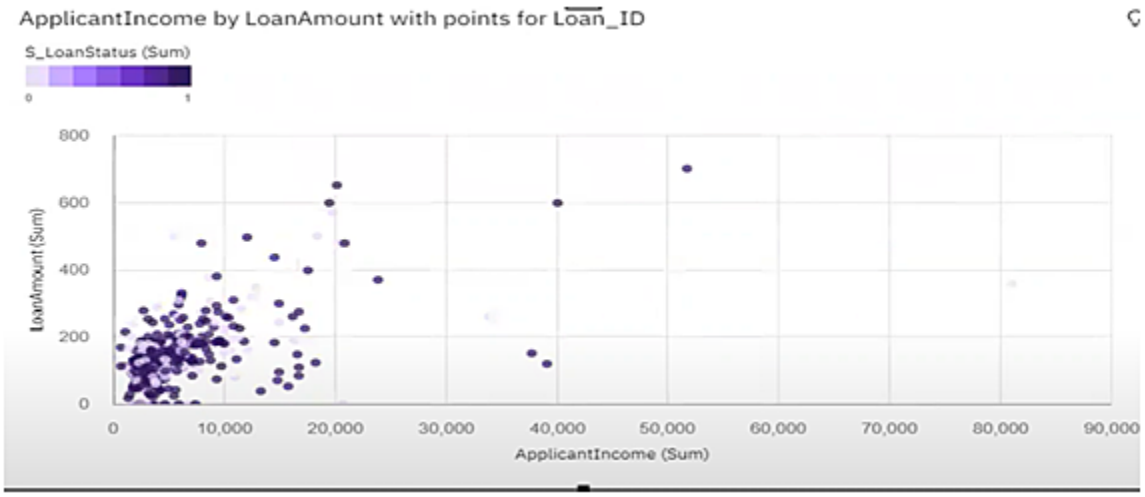
Here we will analyze the loan eligibility based on Property Area and Loan Amount.



Eligibility Based On Income & Loan Amount

Distribution of Loan Eligibility by Applicant Income by Loan Amount with points for Loan_ ID

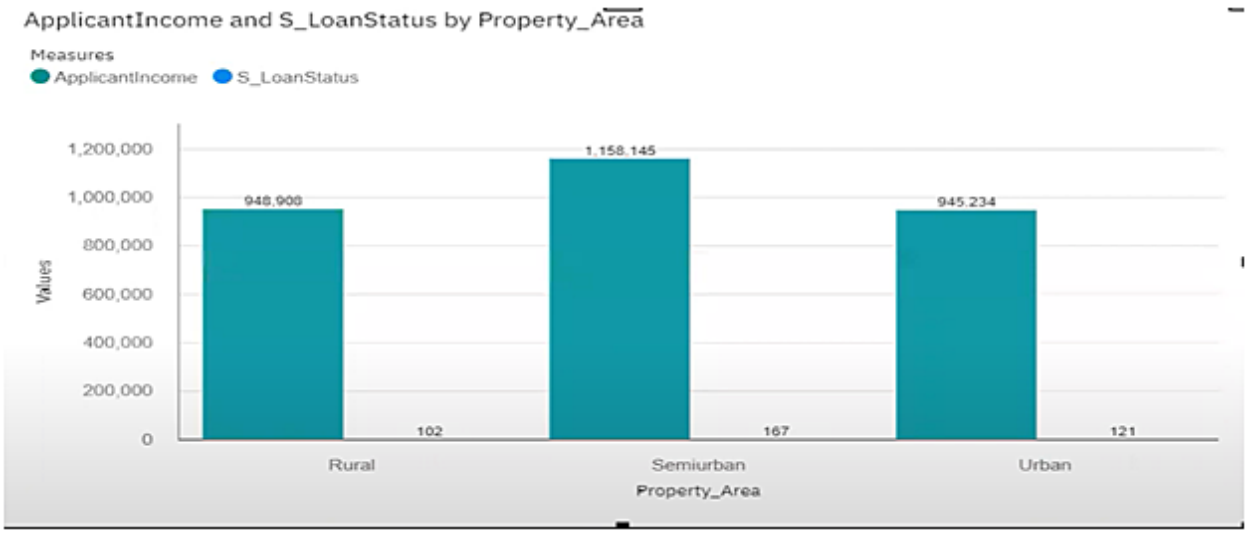
Here we will analyze the loan eligibility based on Income & Loan Amount.



Eligibility Based On Applicant Income & Property_ Area:

Distribution of Loan Eligibility based on Applicant Income & Property_ Area

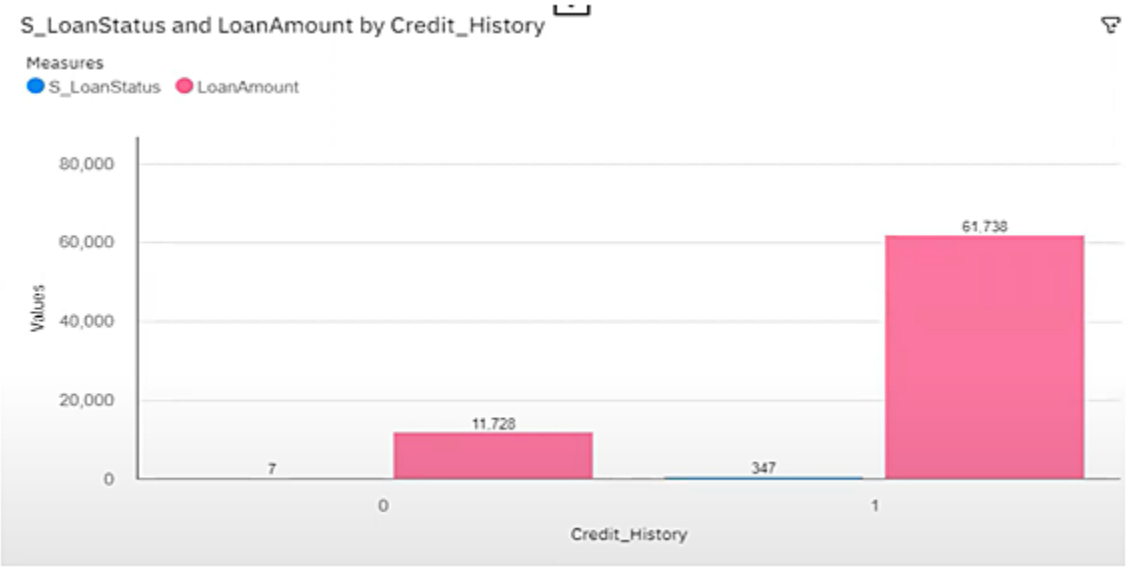
Here we will analyze the loan eligibility based on Applicant Income & Property Area.



Eligibility Based On Loan Amount & Credit History.

Distribution of Loan Eligibility based on Loan Amount and Credit History.

Here we will analyze the loan eligibility based on Loan Amount & Credit History.



ADVANTAGES AND DISADVANTAGES:

Advantages:

1. Lower costs - reduces maintenance due to complete report coverage and a zero-footprint environment.

1. Faster results - shortens reporting time due to seamless integration and adaptive authoring.

2. High performance data access across all source.

Disadvantages:

1. The permission level for a user cannot be modified

2. Data grouping

3. Custom visualizations

4. Insights in visualization

APLLICATIONS:

The areas where this solution can be applied:

1. Future loan eligibility prediction analytics using Ibm cognos Dashboard
2. The Visualization can be done by using visualization tools.

CONCLUSION:

From this entire findings we know fundamental concepts and can work on IBM COGNOS .

- Gain a board understanding of Visualization.
- Learn to build stunning models on IBM cloud.
- To create data visualizations to understand.

FUTURE SCOPE:

Enhancements that can be made in the future:

- This model can be further developed to suggest an any analysis can be done by using Ibm cognos dashboard .And future loan eligibility prediction analytics were done by this Visualization based on the input parameters.

- We can scope the better job in future with easy experience.

BIBILOGRAPHY:

References of previous works or websites visited/books referred for analysis about the project, previous solution findings https://www.kaggle.com/vikasukani/loan-eligible-dataset

APPENDIX:

…….!