

User Guide – A Loan Prediction Challenge

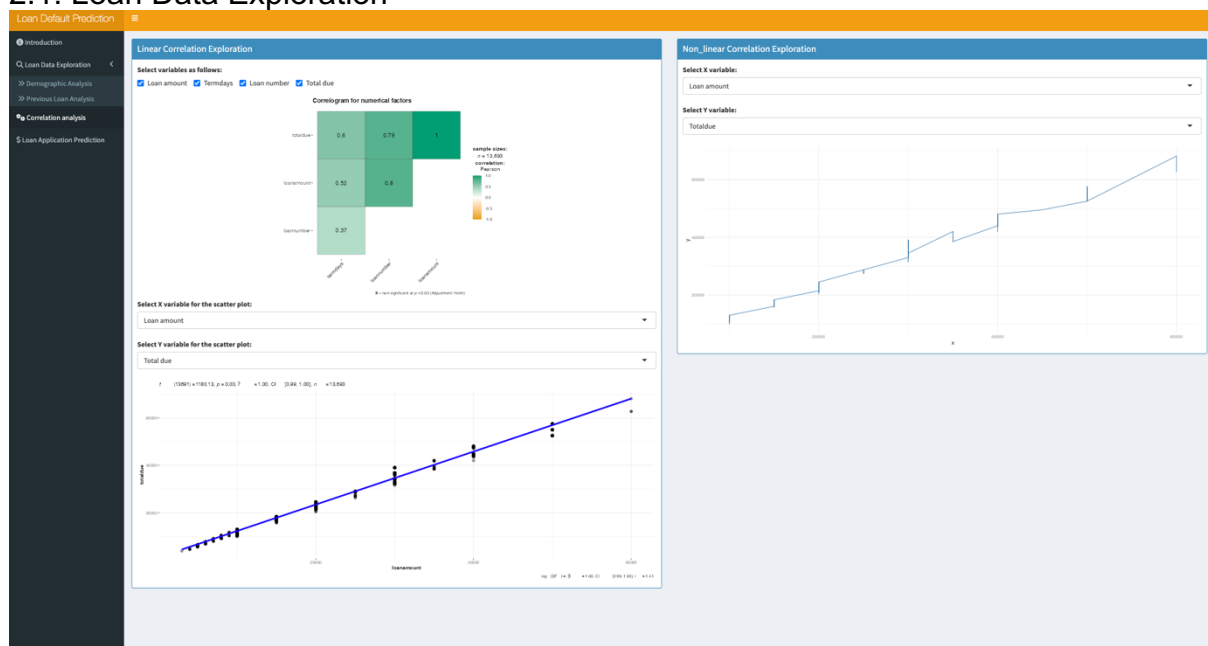
1. IntroductionPage

On this page, there is a short description of the application and an overview of the application navigation.

2. ExploratoryDataAnalysis(EDA)

Across each tab, there is a sub tab that gives instructions on how to the user can interact with the visualization.

2.1. Loan Data Exploration

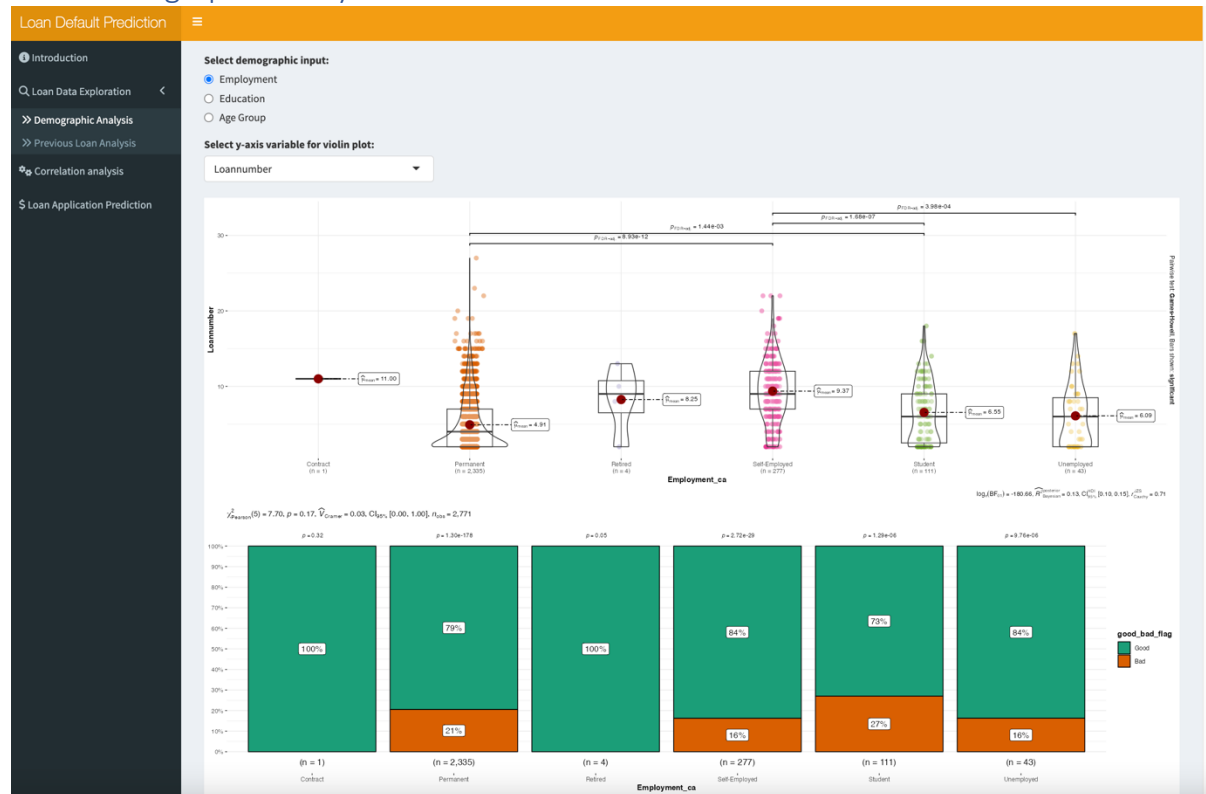


Choropleth Map is a thematic map in which areas are shaded in proportion to a statistical variable that represents an aggregate summary of a characteristic within each area.

[1] Select from following factors: loan amount, termday, loan number, total due

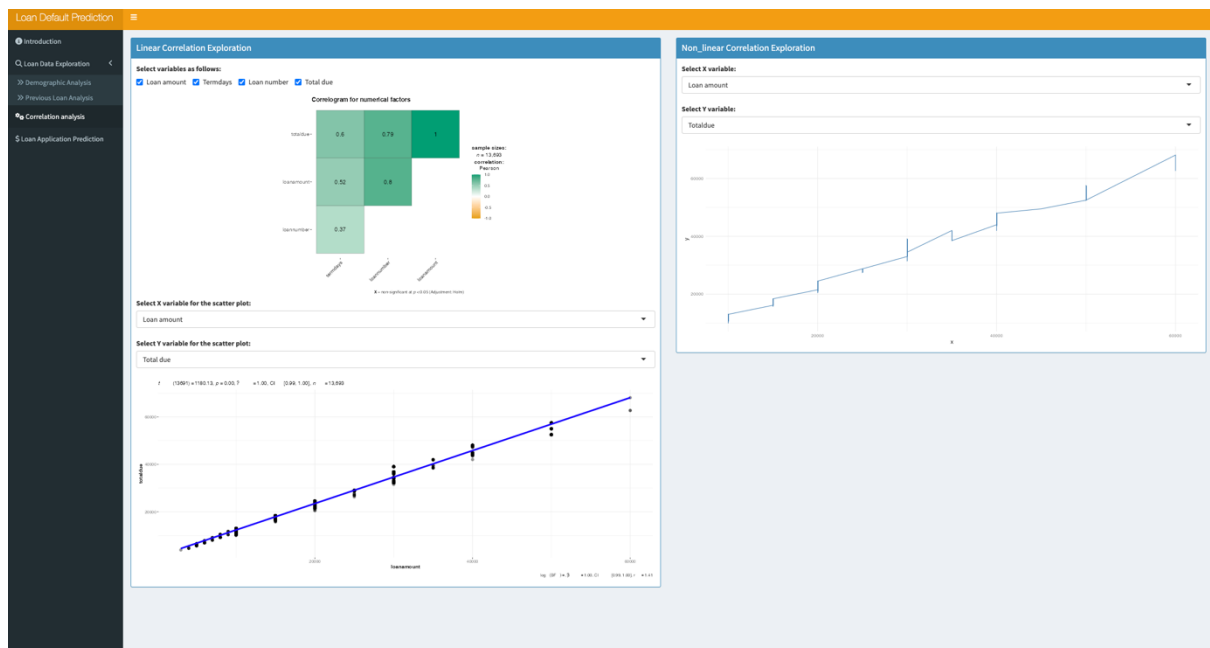
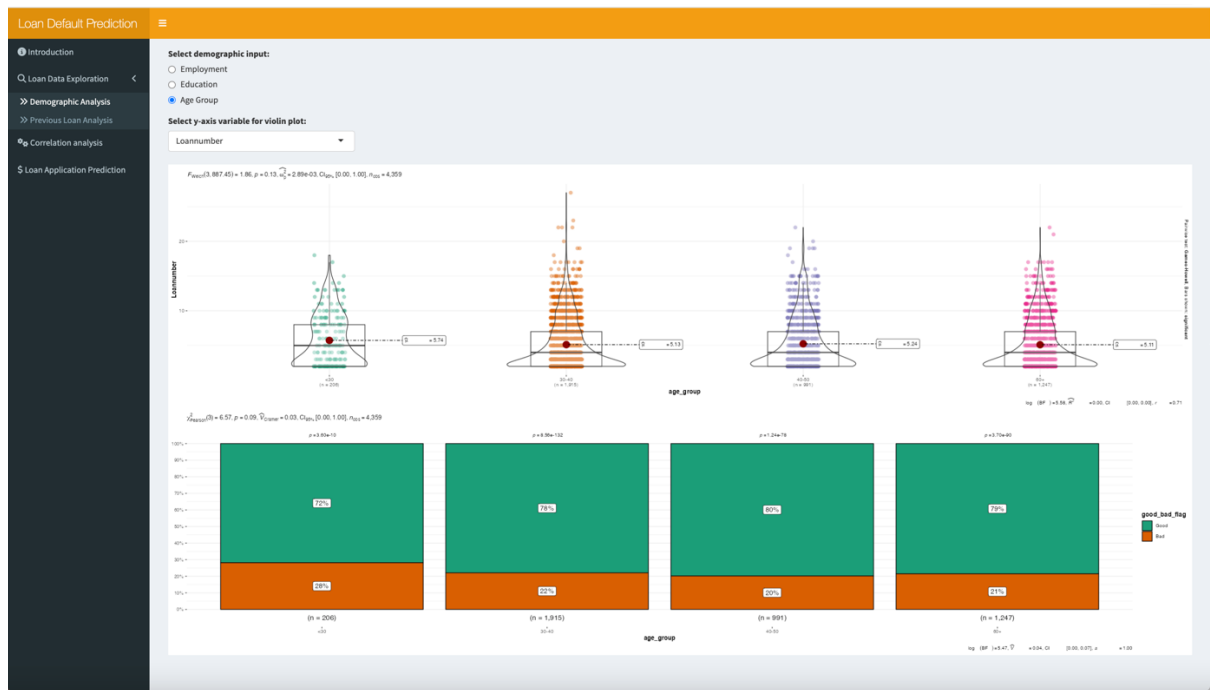
[2] Select the x and y-axis factor to plot linear and non-linear regression.

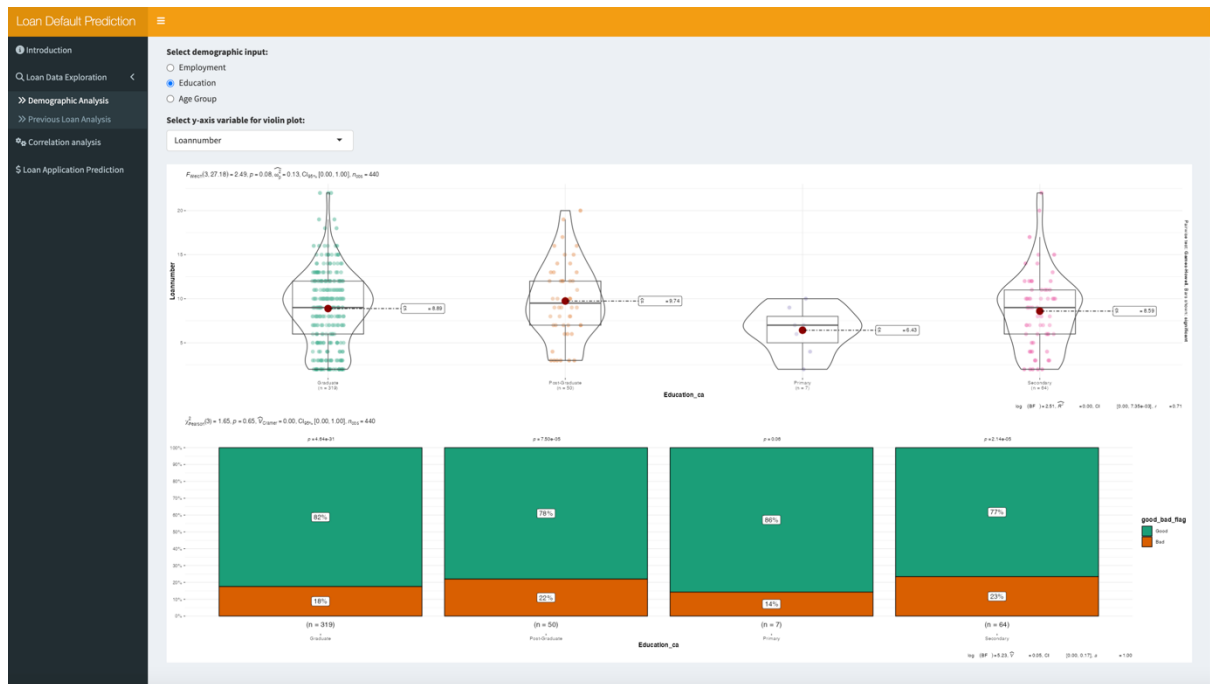
2.1.1 Demographic Analysis



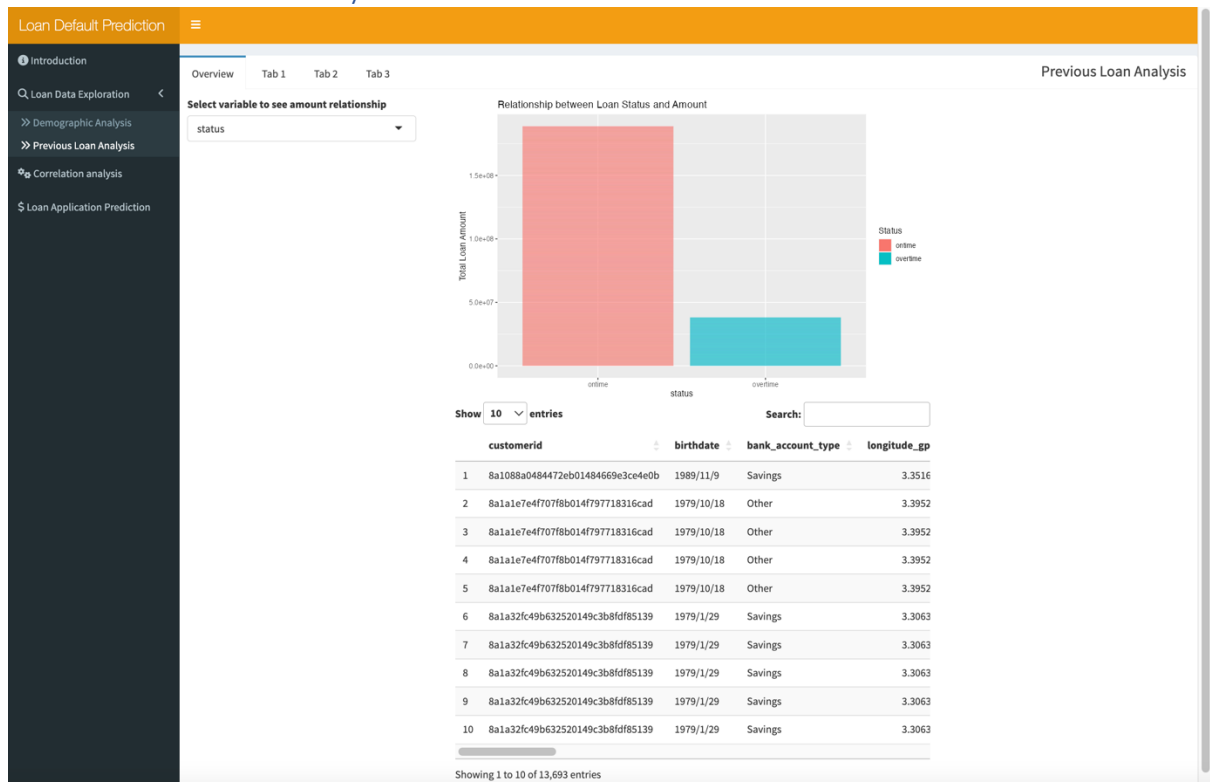
Parallel Set charts are similar to violin Diagrams in the way they show flow and proportions. Each graph can be coloured to show and compare the distribution between different categories of employments. For each dimension, a horizontal bar is shown for each of its possible employments. The width of the bar denotes the absolute number of matches for that category.

- [1] Select the number of levels or categories that you wish to visualise.
- [2] Select the categories that you wish to visualise.
- [3] Select the y-axis variable button to ensure that y-axis selections are applied.

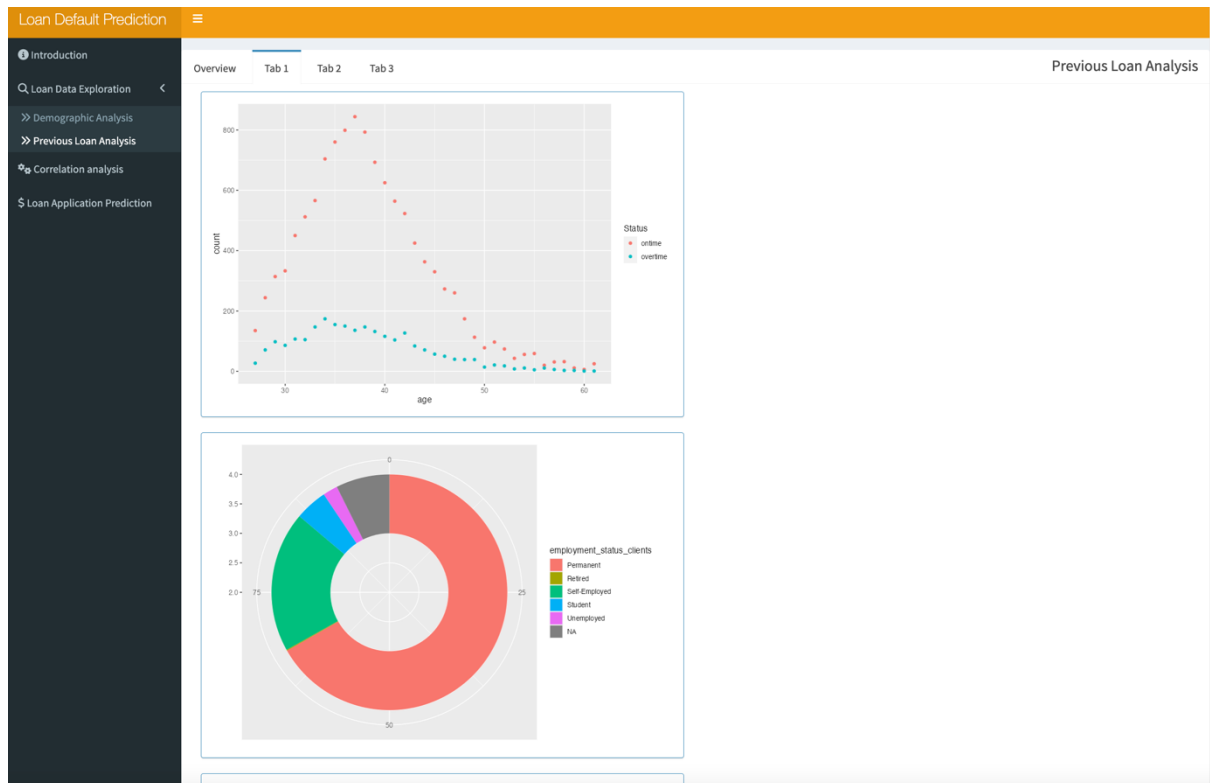




2.1.2 Previous Loan Analysis

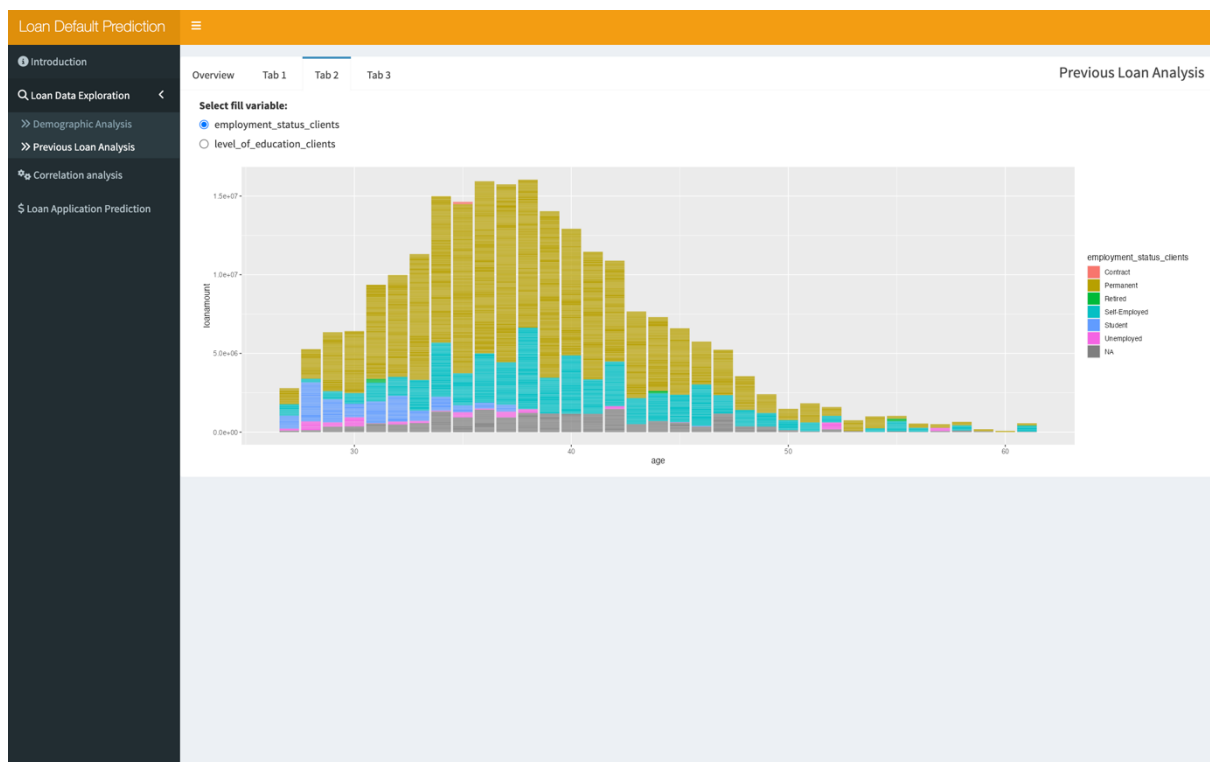


The previous loan analysis has 4 tabs: overview, tab1, tab2, tab3. Each has its own function



[1]In tab1,you can explore the distribution of the amount of the repay status within different age group which is showed in the way of scatter plot.

[2]The graph below showed the ratio of different employment of customers



[1]In tab2,you can explore the distribution of the amount of the customers with different employment status which is showed in the way of bar chart.

[1]In tab3,you can explore the distribution of the amount of the repay status within different age group which is showed in the way of scatter plot.

[2]The graph below showed the ratio of different employment of customers

3. Loan Application Prediction :

Loan Default Prediction

Introduction

Loan Data Exploration

Demographic Analysis

Previous Loan Analysis

Correlation analysis

Loan Application Prediction

Loan Application Prediction

Loan amount

17,819 60,000

10,000 20,000 30,000 40,000 50,000 60,000

Termdays

30

Previous total loan amount

68,833 770,000

5,000 158,000 311,000 464,000 617,000 770,000

Employment

Permanent

Predicted Good/Bad Flag

[1]In Loan Application Prediction tab ,user could input the following information :loan amount, termdays, previous total loan amount, employment to predict the loan repay status from the sliderpanel or selectpanel;

The prediction result will be labled in right side.

[2]The prediction results are based on logistic regression machine learning model.