According to the logistic regression model that was trained, tested, and ran the accuracy and precision of prediction was high for both healthy loans and high-risk loans.  Healthy loans being nearly all identified (99%) and all predicted (100%) with a larger support number (18862).  High-Risk loans were nearly all identified (98%), however only 84% of high-risk loans were actually predicted, they also had a smaller support sample pool of 722, which may have contributed to the lower rate of predictions, due to the smaller sample size.  Based on the overall metric scores of the model (accuracy - 99%, macro avg - 99%, 92%, & 95%, weighted average - 99%, 99%, & 99%). I would use this as a one tool to determine the viability of a loan along with other factors the would be provided at the time of the start of the loan application process.

**Healthy Loan**

* Precision - 0.99
* recall - 1.00
* f1-score - 1.00
* support -18662

**High Risk Loan**

* precision - 0.98
* recall - 0.84
* f1-score - 0.91
* support - 722

|  |
| --- |
|  |
| precision    recall   f1-score   support |
| accuracy                           0.99     19384 |
| macro avg       0.99      0.92      0.95     19384 |
| weighted avg       0.99      0.99       0.99     19384 |

|  |
| --- |
| Prediction  Actual |
| 0           0         18652 |
| 1           1           609 |
| 0           113 |
| 0           1            10 |

Name: count, dtype: int64