1. From the classification model, we discovered that the property area and whether the applicant had the line of credit for more than 2 years or not were the major predictors of the loan approval status(approved/not)
2. The AUC performance metric was 80% which is acceptable.
3. This tells us that this model can be deployed by the bank to classify whether a new applicant for a loan is eligible or not and therefore help the bank in taking the most appropriate decision.
4. From the clustering algorithm, we discovered

Chart

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Try to read the characteristics of the applicants in each group to treat them differently.

-past applicants in the blue group/cluster tend to have relatively low credit scores and low incomes.

- past applicants in the pink group/cluster tend to have relatively low annual incomes but good credit score, so maybe we can offer them loans because we are confident that they will completely pay off their loan after the loan term is over.