**Deliverable 4:**

1. **Overview:** As providing credit is a risky product for the organizations,this assignment enables the organization to mitigate the inherent risk by evaluating the risk of a loan repayment. Use of logistic regression, easy ensemble and random forest classifier models were used for this assignment.
2. **Results:** Following are the results of resampling and ensembling methods:

* Random Oversampling: Accuracy Score: 64.63%, Precision: 99% and Recall: 58%A picture containing table

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* SMOTE: Accuracy Score: 65.80%, Precision: 99% and Recall: 69%

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Description automatically generated

* Undersampling: Accuracy Score: 65.80%, Precision: 99%, Recall: 40%Table

  Description automatically generated with medium confidence
* Combination Sampling: Precision: 99%, Recall: 57%, Accuracy Score: 65%

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* Balanced Random Forest Classifier: Precision: 99%, Recall: 87% and Accuracy Score: 65%

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* Easy Ensemble: Accuracy: 91.70%, Recall: 94% and Precision: 99%

Calendar

Description automatically generated with low confidence

1. **Recommendations:** The Easy Ensemble Classifier has the highest accuracy score compared to other methods.