Results from summary table confirms Gradient boosting classifier and Random forest classifier outperformed the rest with Gradient Boosting classifier having better value of recall and precision in reducing false positive and false negative. High value of recall means less false negative (a smaller number of actual churned customers predicted as non\_churner). I chose recall as my main parameter when comparing models. On the other hand, precision helps when the costs of false positives are high which is not the case here. Unfortunately, it is not possible to maximize both these metrics at the same time, as one comes at the cost of another.

Based on assumptions stated in methods section lets calculate cost of false negative and cost of false positive. R is cost of retention and L is cost of losing a customer (refer Data and Methods section for assumptions).