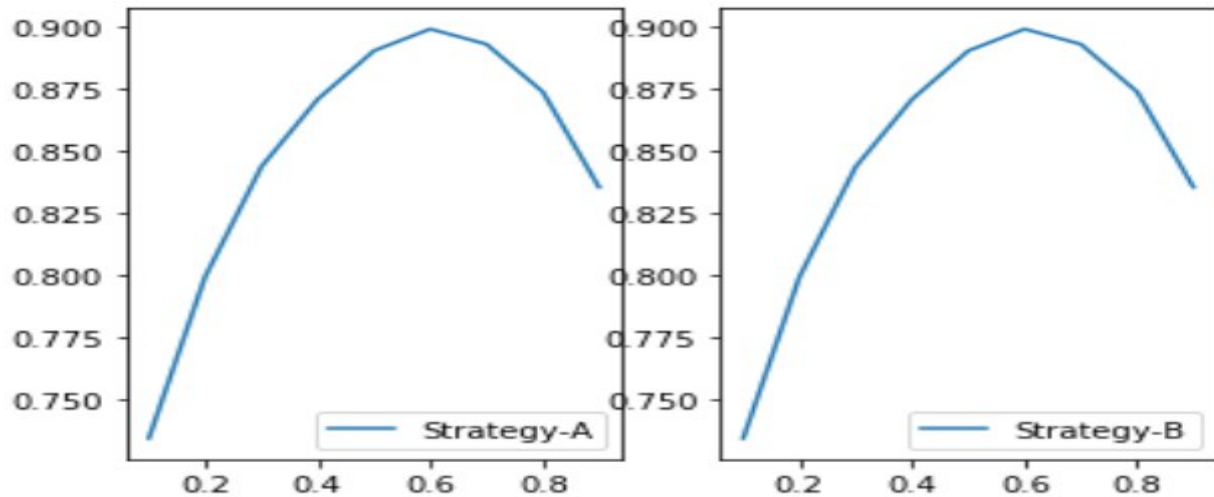


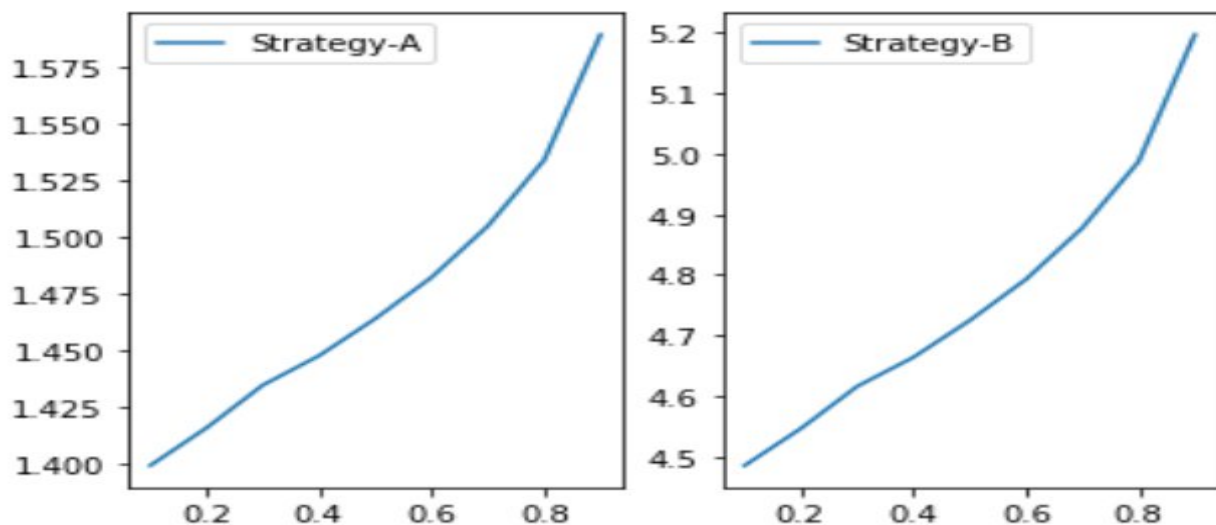
HA4 Bonus Report

1) Accuracy of model with respect to threshold



We can clearly observe that accuracy of model doesn't depend on strategies, it remains same irrespective of any strategy.

2) Profit per discount w.r.t. threshold



Profit per discount increases on increasing the threshold irrespective of any strategy.

3) Number of clients we will lose in case of both strategies:

Churned Customers has been calculated as $TP \cdot (1 - \text{Acceptance_Rate}) + FN$

Count of Churned Client	
Threshold	
0.1	2187
0.2	2080
0.3	1961
0.4	1881
0.5	1782
0.6	1675
0.7	1545
0.8	1383
0.9	1093

Table 2 Strategy-A

Count of Churned Client	
Threshold	
0.1	1925
0.2	1830
0.3	1725
0.4	1655
0.5	1568
0.6	1474
0.7	1359
0.8	1217
0.9	962

Table 1 Strategy-B

Strategy-B seems to be well promising compare to the Strategy-A as we have less number of churned customers in case of strategy-B.

Number of clients we will lose remain same either we consider the average monthly charge or actual customer monthly charge.

4) On considering the actual customer monthly charge instead of average as we did in previous task, highest profit increases in case of strategy-B.

5) Either we consider actual customer monthly charge or average, in both the cases strategy-B gives highest profit and highest profit per customer.