7. Conclusion

Explain your observations from the above performance tuning effort.

Q.8.1 How long was your total run time to train the model?

2 hours

Q.8.2 Did you find the BEST TREE?

yes

Q.8.3 Draw the Graph of the BEST TREE Using GraphViz

As shown in the file

Q.8.4 What makes it the best tree?

It has the highest accuracy score and frequency.

Q.10.1 What is the probability of the outcome of the prediction for this ? What is

your decision probability threshold and what is your predicted decision based on that?

The probability of the outcome of the prediction for this is [[0.64522077 0.35477923]]. The probability of less than 50k is 0.65, of more than 50k is 0.35. My predicted decision is less than 50k.

Q. 10.2 What is the probability that your outcome prediction is accurate?

Very likely.