

# Lead Scoring Case Study Summary

- Tags and Lead Source and What is your current occupation and Last Notable activity are the top 4 variables which contribute most towards the probability of a lead getting converted.
- Country and What matters most to you in choosing a course and Last Notable Activity are the 3 variables which should be focused for the most in order to increase the probability of lead conversion.
- All variables have a good value of VIF. So we need not drop any more variables and we can proceed with making predictions using this model only
- Accuracy at threshold 0.4 is highest.
- A common way to visualize the trade-offs of different thresholds is by using an ROC curve, a plot of the true positive rate ( true positives/ total positives) versus the false positive rate ( false positives /total negatives) for all possible choices of thresholds.
- A model with good classification accuracy should have significantly more true positives than false positives at all thresholds.
- The optimum position for roc curve is towards the top left corner where the specificity and sensitivity are at optimum levels

## Area Under The Curve (AUC)

- The area under the ROC curve quantifies model classification accuracy ; the higher the area, the greater the disparity between true and false positives, and the stronger the model in classifying members of the training dataset.
- An area of 0.5 corresponds to a model that performs no better than random classification and a good classifier stays as far away from that as possible. An area of 1 is ideal.
- The closer the AUC to 1 the better.