1. Which are the top three variables in your model which contribute most towards the probability of a lead getting converted?

   Solution: Lead Source, Occupation of the customer and Last activity are the variables which are impacting the conversion rate positively.

2. What are the top 3 categorical/dummy variables in the model which should be focused the most on in order to increase the probability of lead conversion?

   Solution: As per our model we have higher co-efficient for the following three features,

   a. **Lead Source_Welingak Website – 5.54**
   b. **What is your current occupation_Working Professional – 3.69**
   c. **Lead Source_Reference – 3.44**

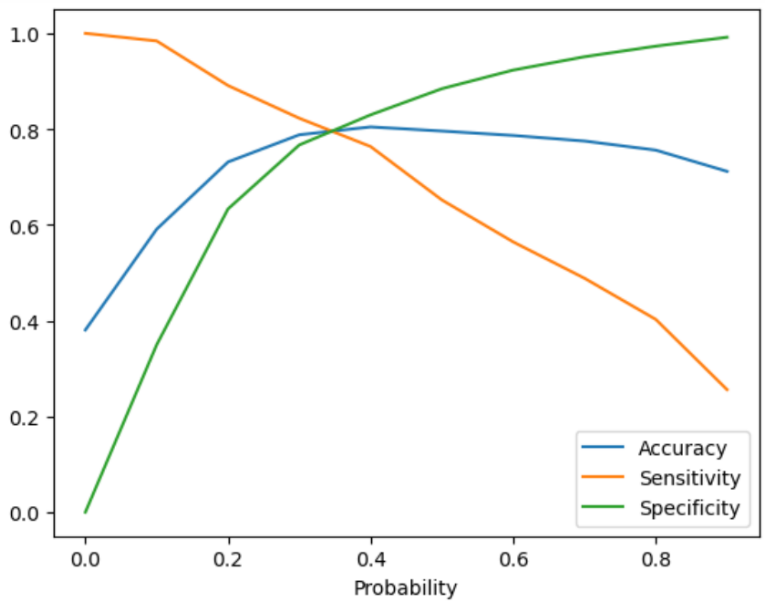
	coef
const	-1.9858
Do Not Email	-1.2555
Total Time Spent on Website	0.9217
Lead Source_Direct Traffic	-0.6693
Lead Source_Organic Search	-0.3769
Lead Source_Reference	3.4441
Lead Source_Welingak Website	5.5428
Last Activity_SMS Sent	1.4356
What is your current occupation_Student	1.2099
What is your current occupation_Unemployed	1.2403
What is your current occupation_Working Professional	3.6891

3. X Education has a period of 2 months every year during which they hire some interns. The sales team, in particular, has around 10 interns allotted to them. So, during this phase, they wish to make the lead conversion more aggressive. So, they want almost all of the potential leads (i.e., the customers who have been predicted as 1 by the model) to be converted and hence, want to make phone calls to as much of such people as possible. Suggest a good strategy they should employ at this stage.

   Solution: Every sale cycle will have its impact from seasonality. The first suggestion to management would be to,

   a. **To plan the hiring of these interns during the peak season (High volume of leads)**
   b. **Our model predicts 'Hot leads' with a recall score of 84.35% with an accuracy of ~80%, hence these leads have to be prioritized**
   c. **Recall score/Sensitivity is the percentage by which our model is predicting converted leads correctly over the total number of actual conversions.**

d. **As shown in the graph below sensitivity can be regulated by using different optimal cut off point, if we need to target high conversion rate potential leads then we can find the cut off point which yields higher % of sensitivity.**



e. **It is advisable that the sales team managers educate or provide the guidance to interns on important variables that have positive impact on the conversion rate**
f. **Interns must also be aware of the red flags (Features that suggest negative impact on the conversion rate) as well so they can move on to another customer and avoid wasting time.**

4. Similarly, at times, the company reaches its target for a quarter before the deadline. During this time, the company wants the sales team to focus on some new work as well. So, during this time, the company's aim is to not make phone calls unless it's extremely necessary, i.e., they want to minimize the rate of useless phone calls. Suggest a strategy they should employ at this stage.

Solution:

a. **In this scenario team can take help of another evaluation metric of the model which is 'Specificity'. This metric is contrary to Specificity and provides the negative conversion rate over total actual negatives.**
b. **Hence it is important to choose an optimal cut off point that yields in high specificity, this way sales team can avoid as many non-leads as possible.**
c. **There are chances that the model might also ignore the high potential leads in this case but that should not impact the business as the team has already reached its target for the quarter.**