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

The top 3 variables in my model that contribute most towards the probability of a lead getting converted, can be identified based on their coefficient. Based on the coefficient of the features in the model 'lrm2', the top 3 impactful features are:
- Tags_Will revert after reading the email - with a positive coef of 4.06 - indicates whether the status of the lead is "Will revert after reading the email"
- Lead Origin_Lead Add Form - with a positive coef of 2.97 - indicates whether the origin identifier of the lead is "Lead Add Form"
- Search - with a positive coef of 2.63 - indicates whether the lead had seen the ad in Search

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?**

For the top 3 categorical/dummy variables, we have:
- Tags_Will revert after reading the email
- Lead Origin_Lead Add Form
- Last Notable Activity_SMS Sent - with a positive coef of 2.01 - indicates whether the last notable acitivity performed by the lead is "SMS Sent"

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.**

If X Education wants to make fall calls to as much of potential leads as possible, and the has the resources to do so, by hiring some interns, then as their Data Analyst, we can lower the cut-off threshold, from 0.28 to 0.25, 0.20 or even less. This will allow the model to increase its sensitivity, thus increasing the change of an Actual Converted Lead predicted as a Converted Lead, to over 90%

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.**

By contrast, if we don't want to ring up the wrong one (the one that wouldn't convert), then we can increase the cut-off threshold, from 0.28 to 0.35, 0.40 or even more. This will allow the model to its precision, thus increasing the change of an Actual Not Converted Lead predicted as a Not Converted Lead, to over 90%