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

   The top three variables are the variable with the largest coefficient. In our model they are: 'Lead Source_Welingak Website', 'Total Time Spent on Website', 'Lead Source_Reference'

   They contribute maximum towards Lead score prediction. Hence to increase sales focus on these factors.

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?

   'Lead Source_Welingak Website', 'Lead Source_Reference' and Last Activity_Had a Phone Conversation are the three most important dummy variables with respect to the size of the coefficient(Which directly influences prediction.

   Based on these variables(top 2 variables are from lead source) we can see that Lead source is an important categorical variable. Moreover, the coefficient of the Last Activity_Had a Phone Conversation is small compared to the others, so in order to increase probability of lead conversion the company should focus on Lead Source Category by increasing investments in terms of research and advertisements.

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 many of such people as possible. Suggest a good strategy they should employ at this stage.

   For all Leads to be converted Conversion probability should be very high for the potential leads. That also means specificity should be very high . Specificity measures how often a value is positive when it is actually predicted positive. For our model specificity is 96.8%, because only when the conversion probability is greater than 80% the point is predicted positive. To get an even higher specificity we can increase the cutoff probability.

   We can also focus on people fulfilling all important criterias (with very high coefficients) like people directed from 'Lead Source_Welingak Website', who spends a lot of 'Total Time Spent on Website' and has also be referred ('Lead Source_Reference').

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.

The plan is to focus on important tasks like reaching out to promising leads(with very high probability) and retaining existing customers , while reducing less important calls. This way, they use their time wisely and can explore new opportunities.As for potential new converts, only call people with conversion probability above 95%(People who almost definitely want to apply). They have already completed their quarterly goal, so they could focus on research at this point. This term was a success for them (Because they completed their goal sooner than the stipulated time).They could collect data from employee and customer feedback, focus on factors that led to their success and improve on them. Further they can compare their data with previous unsuccessful terms and find out differences (Potential causes of failures). They could also focus on other areas of business like building customer loyalty and reducing implementation costs.