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

   The three features that contribute most (on the positive side) are as follows,
   - Lead Source: Welingak Website
   - Total Time Spent on Website
   - Lead Origin: Lead Add Form

   The three features that contribute most (on the negative side) are as follows,
   - Lead Quality: Worst
   - Lead Quality: Not Sure
   - Last Activity: Not Sure

Based on the above-mentioned features a lead that is coming from Welingak website or the lead add form along with the total time spent on website play a crucial role in making a hot lead. However, the current quality defining criterion should be continued as it is as they play a role in deciding if the lead is good or not.

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?*

   The top three dummy variables that play a crucial role in increasing the probability of lead conversion
   - **Lead Source**: Welingak Website
   - **Lead Origin**: Lead Add Form
   - **Last Notable Activity**: Had a Phone Conversation

     The **lead quality** dummy variables also play a crucial role in defining whether a person can be a hot lead or not.

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.*

   In this specific case we would like to **increase Sensitivity** so that the model increases its ability to identify positive cases which would lead to capturing of a higher proportion of potential leads. At the same time it will increase false positivies i.e. incorrect leads but given we have extra workforce this would be helpful. With the increase in sensitivity, more number of potential leads will be reached in turn increasing the organization conversion rate and revenue.

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 company should prioritize **increasing Specificity** so that more true negatives are identified and the workforce is not occupied in calling more incorrect leads. This will allow them to only pursue the correct leads and dedicate the rest of time to other workstreams. In turn saving their cost and building a more robust operating model.