Some Business Questions

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

   We see for the final model that the features with their coefficients are as follows –

   Features that **positively impact** the lead scoring probability of our model in decreasing order:

Feature	Coefficient
Lead Source - Welingak Website	5.76
Lead Source - Reference	4.19
Last Activity - SMS Sent	1.85
Last Activity - Other Activities	1.59
Lead Origin - Lead Import	1.41
Lead Source - Olark Chat	1.21
Total Time Spent on Website	1.15
Last Activity - Email Opened	0.70

   Features that **negatively impact** the lead scoring probability of our model in decreasing order:

Feature	Coefficient
Do Not Email	-1.58
Last Activity - Olark Chat Conversation	-0.92

   Thus, the top 3 features that contribute most towards the probability of the lead converted by my model are –

   (1) – Lead Source
      a. Welingak Website
      b. Reference
   (2) – Last Activity
      a. SMS Sent
      b. Other activities
   (3) – Lead Origin

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?**

   As we can observe the tables in the above question, we can find 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 are –

   (1) – Lead Source – Welingak Website
   (2) – Lead Source – Reference
   (3) – Last Activity – 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.**

   Since X Education wants to implement a more aggressive strategy, thus it is recommended for their interns to make more frequent calls to people –
   - People/Customers those who have their source through Welingak Website or through a reference.
   - People/Customers who have last activity registered as SMS sent.

   Also, the model could be run at a low probability cut-off rate, like 0.35 in our case will yield pretty good results. This can be done by selecting all the customers with a lead score of more than 35 as a possible lead and thus approaching them.

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.**

   This can be achieved by running the model at high cut-off rate, like 80. This will ensure that only those customers will be approached who have around 80% probability of being converted as a lead. Students should be focused more during this time.

   Apart from this, the top features should be kept in mind in deciding the customer to be approached.