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

Answer: The most influential variables in my model, which significantly contribute to lead conversion, are as follows:

* Total Time Spent on Website
* Last Activity\_SMS Sent
* TotalVisits

Summary: According to our model, the Total Time Spent on Website plays a pivotal role in lead conversion.

1. **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?**

Answer: The top three variables in my model that warrant focused attention are:

* Last Activity\_SMS Sent (positively impacting): This variable has a significant positive influence on lead conversion. Therefore, efforts should be directed towards increasing the frequency of sending SMS notifications.
* Last Activity\_Olark Chat Conversation (negatively impacting): The presence of this variable has a notable negative impact on lead conversion. To improve conversion rates, it is crucial to address and enhance the performance of the Olark Chat service.
* Lead Source\_Olark Chat (negatively impacting): This variable is also associated with a negative effect on lead conversion. Taking steps to optimize the Lead Source\_Olark Chat can help mitigate its adverse influence on conversion rates.

Summary: To increase the likelihood of lead conversion, it is recommended to focus on sending more SMS notifications and improving the Olark Chat service. These actions will contribute to improved conversion rates by leveraging the positive impact of Last Activity\_SMS Sent and addressing the negative impact of Last Activity\_Olark Chat Conversation and Lead Source\_Olark Chat.

1. **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.**

⇒ A good strategy will be:

* To focus on wider set of lead audience (inclusion of slightly lower conversion probable leads)
* Technically, we can generate this new set of leads by altering (moving down) the value of cut off so as to include more leads as the hot leads from our Logistic Regression Model
* Doing so, we will be better utilizing resourses and improving chance of converting a lead whose lead conversion probability might be low as well.

1. **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.**

Answer: An effective strategy would involve:

* Expanding the target audience to include a broader set of leads, even those with a slightly lower conversion probability. This inclusive approach ensures that potential leads with varying conversion probabilities are considered.
* From a technical standpoint, this can be achieved by adjusting the cut-off value in our Logistic Regression Model to lower the threshold. By doing so, more leads can be identified as hot leads, thereby encompassing a wider range of prospects.
* Implementing this approach allows for better utilization of resources and increases the likelihood of converting leads with lower conversion probabilities. By recognizing and engaging with these leads, there is an opportunity to optimize lead conversion outcomes and maximize the return on investment.