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

   Through the lens of a data analyst, the top three variables in the model that contribute the most towards the probability of a lead getting converted are:

   1. Lead Source - "Welingak Website" and "Reference": Leads coming from these sources have a higher likelihood of conversion.

   2. Lead Source - "Olark Chat": Leads from this source also have a significant impact on conversion probability.

   3. Total Time Spent on Website: Leads who spend more time on the website are more likely to get converted.

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?

   To increase the probability of lead conversion, we should focus on the following top three categorical/dummy variables in the model:

   1. Lead Source: Specifically, focus on leads from sources like "Welingak Website," "Reference," and "Olark Chat" as they have a higher likelihood of conversion.

   2. What is your current occupation: The company should make calls to the leads who are working professionals as they are more likely to get converted.

   3. Last Activity: Leads with the last activity as "SMS Sent" should be a priority, as this activity seems to have a positive impact on conversion.

   By focusing on these categorical variables, you can potentially increase the probability of lead conversion.

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.

   To make the lead conversion more aggressive during the two-month intern phase, we can employ the following strategy:

1. Increase Call Volume: As the company wants to convert almost all potential leads predicted as 1 by the model, the sales team should significantly increase the number of phone calls made during this period. Ensure that all available interns are actively engaged in making these calls.

2. Optimize Calling Hours: Identify the optimal calling hours when potential leads are more likely to answer their phones. Typically, calling during non-working hours or weekends may yield better results, but it's essential to analyze your specific audience's behavior.

3. Personalized Communication: Train the interns to engage in personalized and meaningful conversations with the leads. Address their specific needs and concerns to build trust and rapport.

4. Follow-Up: Implement a robust follow-up process. If a lead shows interest but doesn't convert immediately, set up a follow-up schedule to keep them engaged.

5. Dynamic Scripting: Develop dynamic call scripts that allow the interns to tailor their conversations based on lead behavior and interests. Flexibility is crucial to address each lead's unique situation.

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.

To minimize the rate of useless phone calls when the company reaches its target for a quarter ahead of schedule, we can employ the following strategy:

1. Lead Scoring and Prioritization: Implement a lead scoring system that ranks leads based on their likelihood of conversion. Focus your calling efforts on leads with the highest scores, as they are more likely to convert. This ensures that you concentrate on the most promising opportunities.

2. Segmentation: Categorize leads into segments based on their behavior, demographics, and interests. Focus on segments that historically have a higher conversion rate. This targeted approach minimizes calls to less promising leads.

3. Call Trigger Events: Only make calls when specific trigger events occur, indicating a lead's increased interest. For example, a lead revisiting the website, downloading resources, or showing other signs of engagement can be a reason to make a call.