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

**Answer:**

The top three variables that contribute most towards the probability of a lead getting converted, based on their feature importance from the logistic regression model, are:

**Total Time Spent on Website:** This variable indicates the engagement level of the lead on the website. More time spent suggests higher interest and thus a higher probability of conversion.

**Lead Source\_Welingak Website:** This indicates that leads coming from the Welingak website have a higher likelihood of converting compared to other sources.

**Page Views Per Visit:** This variable also represents the engagement level of the lead. Higher page views per visit suggest higher interest and therefore a higher likelihood of 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 categorical/dummy variables that should be focused on to increase the probability of lead conversion are:

**Lead Source\_Welingak Website:** Focus on optimizing and increasing the traffic from the Welingak website as these leads have a higher conversion rate.

**Last Activity\_Email Opened:** Leads that have opened emails show engagement and interest. Therefore, email campaigns should be tailored to encourage opening and interaction.

**Lead Source\_Olark Chat:** Leads that have used the Olark chat feature also show higher engagement. Enhancing the chat experience could lead to higher conversions.

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.**

**Answer:**

During the 2-month period when interns are available, the strategy should be to maximize the engagement with potential leads predicted as '1' by the model. Here are some recommendations:

**Prioritize Leads with High Engagement:** Use the model to identify leads with high engagement metrics (like high time spent on the website and high page views per visit) and prioritize these for phone calls.

**Email Follow-ups:** Ensure that all leads who have shown any engagement with emails (e.g., opened emails, clicked links) are followed up promptly with phone calls.

**Utilize Chat Data:** Leads that have interacted via chat should be followed up with phone calls, leveraging the context of their chat conversations to personalize the call.

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:**

When the company has met its targets early and wants to minimize unnecessary phone calls, the focus should be on maintaining lead quality over quantity. Here are some strategies:

**Strict Lead Scoring:** Use the model to strictly filter leads, focusing only on those with the highest predicted probability of conversion. Set a higher threshold for calling leads.

**Monitor Engagement:** Only follow up with leads that have shown recent engagement (e.g., recent website visits, email opens in the last week). This ensures that efforts are focused on interested leads.

**Leverage Automated Communication:** Use automated emails and chatbots to keep leads warm without direct phone calls. Only escalate to phone calls if the lead shows further engagement or explicitly requests a call.