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

   The top 3 variables in the model which contribute most towards the probability of a lead getting converted are,
   i.   Total Time Spent on Website
   ii.   Current Occupation as Working Professional (Feature name: What is your current occupation_Working Professional)
   iii. Last Activity as SMS Sent (Feature name: Last Activity_SMS Sent)

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 3 categorical/dummy variables in the model that should be focused on the most to increase the probability of lead conversion are,

   i.   <u>Total Time Spent on Website</u>
   - Encourage longer engagement by creating more engaging and informative content on the website. This could include interactive tutorials, case studies, or success stories that showcase the benefits of their courses.
   - Optimize the website's layout and navigation to make it easier for visitors to find what they are looking for and spend more time exploring the site.
   - Implement personalized recommendations based on a visitor's browsing history or interests to keep them engaged and encourage them to explore additional content.

   ii.   <u>Current Occupation as Working Professional</u>
   - Tailor marketing efforts towards working professionals by highlighting the practical skills and industry-relevant knowledge that can be gained from the courses.
   - Offer flexible learning options, such as self-paced online courses or part-time programs, to accommodate the busy schedules of working professionals.
   - Partner with professional organizations or companies to offer exclusive discounts or promotions for their employees, making it easier for them to access courses and improve their skills.

   iii. <u>Last Activity as SMS Sent</u>
   - Use targeted SMS campaigns to remind working professionals about the benefits of the courses and encourage them to revisit the website. These messages could include personalized offers, discounts, or exclusive content that is only available for a limited time.
   - Implement a chatbot or live chat feature on the website to provide immediate assistance and answer any questions that potential leads may have about the

courses. This can help build trust and encourage them to take the next step towards enrollment.

- Consider using SMS as a channel for delivering personalized content, such as course updates, reminders, or progress reports, to keep working professionals engaged and motivated throughout their learning journey.

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.**

   i. <u>Prioritize High-Quality Leads by adjusting the Decision Threshold</u>
   - The default threshold for logistic regression is 0.5. Lowering this threshold to say 0.3 can help increase recall i.e., adjusting the decision boundary at which the model decides whether a given instance belongs to the positive class.
   - Use the logistic regression model to identify the most promising leads (those with the highest predicted probabilities of conversion) and prioritize them for follow-up by phone calls. This will ensure that the interns focus their efforts on the leads with the greatest potential for success.

   ii. <u>Focus on leads with high potential</u>
   - Total Time Spent on Website
   - Current Occupation as Working Professional (Feature name: What is your current occupation_Working Professional)
   - Last Activity as SMS Sent (Feature name: Last Activity_SMS Sent)
   - Thus, the sales team should prioritize calling leads from these sources during the intern-hiring period.

   iii. <u>Focus on the Last activity data</u>
   - Use insights gained from the last activity data to optimize marketing strategies and allocate resources more effectively.
   - Notably, leads who have responded to SMS communications and engaged with email campaigns from X Education are more prone to conversion.
   - As such, the sales team must focus their efforts on contacting these individuals first, capitalizing on the momentum generated by their prior engagement.

   iv. <u>Maintain multi-channel approach</u>
   - In addition, the sales team should also prioritize following up with leads who have demonstrated interest through various touchpoints with X Education.
   - This includes individuals who have engaged with our website's Olark Chat feature, or through references.

- By proactively engaging with these multi-channel interactors, the sales team can capitalize on the existing interest and increase the likelihood of conversion.

To drive more aggressive lead conversions during the internship-hiring period, X Education should strategically prioritize leads from top-performing sources, optimize communication methods to maximize response rates, enhance website interactions through features like Olark Chat, and maintain a multi-channel approach to engage with interested individuals across various touchpoints. By focusing on these key strategies, X Education can increase lead conversion rates and ultimately fill more internship positions.

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 mitigate the number of unproductive phone calls when reaching the quarterly sales target before the deadline, X Education can implement the following strategy:

- Implement personalized nurturing activities such as targeted emails, SMS, and newsletters to engage with high-potential leads.
- Leverage automated SMS campaigns to proactively connect with customers who are likely to convert.
- Collaborate closely with the sales team, management, and data scientists to refine the model, gather feedback on what works, and identify areas for improvement.
- Improve the quality of data by filling in missing data points which would eventually help prepare better machine learning models.
- Develop a strategy for offering targeted incentives or discounts to encourage potential customers to take action.
- Focus on building meaningful relationships with potential customers through alternative communication channels like email, social media, or chatbots.
- Solicit feedback from existing customers to enhance the quality of generated leads and optimize conversion rates.