Assignment Subjective Questions

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

   The top three variables in my model, that contribute towards lead conversion are:

   ⇨ Total visits
   ⇨ Total Time Spent on Website
   ⇨ Page Views Per Visit

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 variables should be focused on:

   ⇨ **Tags_Will Revert after reading the email**: High conversion potential when the tag indicates that the lead will revert after reading an email.
   ⇨ **Last Activity_SMS Sent**: Leads who have received SMS are more likely to convert.
   ⇨ **Lead Source_Reference**: Leads referred by others (via reference) have a high conversion rate.

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 maximize lead conversion during the 2-month internship phase, X Education should implement the following strategy:

   1. **Prioritize Leads Based on Model Predictions**: Utilize the logistic regression model to identify leads predicted as '1' (likely to convert). These are the high-probability leads that should be the primary focus.

   2. **Segment Leads by Probability**: Within the predicted positive leads, segment them by their predicted probability of conversion. Prioritize those with higher probabilities for initial contact, as they have a better chance of converting.

3. **Optimize Intern Utilization**: Distribute the leads among the 10 interns, ensuring each intern is assigned leads from the highest probability segments first. This approach maximizes the potential conversion rate by focusing effort on the most promising leads.

4. **Monitor and Adjust**: Continuously monitor the conversion rates of the contacted leads. Adjust the strategy dynamically if certain segments show better performance or if interns encounter challenges.

By focusing on high-probability leads and efficiently managing intern resources, X Education can enhance the effectiveness of their lead conversion efforts during the internship period.

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.

When aiming to minimize unnecessary phone calls during periods when targets are already met, X Education should adopt the following strategy:

1. **Focus on High-Quality Leads**: Use the logistic regression model to filter leads with the lowest probability of conversion. Prioritize avoiding calls to these leads, as they are less likely to convert.

2. **Implement a Minimum Probability Threshold**: Set a probability threshold below which leads will not be contacted. For instance, only consider leads with a predicted probability of conversion above a certain threshold, such as 0.7 or 0.8. This reduces the volume of calls to less promising leads.

3. **Leverage Additional Insights**: Utilize other metrics or features identified as significant in the model (e.g., 'Lead Source', 'Last Activity') to further refine lead selection, ensuring that only those with favorable conditions are contacted.

4. **Monitor and Refine**: Continuously track the success rates of the calls that are made and adjust the probability threshold or lead criteria as needed to maintain efficiency.

By implementing these strategies, X Education can minimize unnecessary phone calls while focusing on high-value leads, optimizing both resource allocation and lead quality.