SUBJECTIVE QUESTIONS

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

   Answer:
   With reference to coefficient values in our final model, the top 3 variables are: Total Time Spent on Website (3.9421), What is your current occupation_Working Professional (2.5427), Last Activity_SMS Sent (1.0539). These variables contribute most towards the probability of a lead getting 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?**

   Answer:
   With reference to coefficients values in our final model, the top 3 categorical variables are: Last Notable Activity_Unreachable (2.7965), What is your current occupation_Working Professional (2.5427) and Last Activity_Unsubscribed (1.5209). These variables contribute most towards the probability of a lead getting converted.
   However, logically we can't consider the 'Last Notable Activity_Unreachable' feature as a possible variable for 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.**

   Answer**:**
   The goal of X Education's sales team is to maximize lead conversion during their 2-month intern hiring period, where they have 10 interns available to aggressively pursue potential leads. So, our Strategy for Aggressive Lead Conversion is to Lower The Probability Cutoff value.

	prob	accuracy	sensi	speci
0.0	0.0	0.520038	1.000000	0.000000
0.1	0.1	0.585878	0.992661	0.145129
0.2	0.2	0.707379	0.954128	0.440027
0.3	0.3	0.765267	0.927217	0.589795
0.4	0.4	0.789122	0.870336	0.701127
0.5	0.5	0.789758	0.795107	0.783963
0.6	0.6	0.745865	0.658104	0.840954
0.7	0.7	0.727099	0.573089	0.893970
0.8	0.8	0.680662	0.439144	0.942346
0.9	0.9	0.625954	0.302752	0.976143

During the internship, when the selling skills of the interns are at their lowest, candidates with a lead score between 20% and 30% can be used for training. From the above table, we can observe that any

candidate with a lead score at around 20%, has 95% (sensitivity) of lead conversion out of which 45% leads would not convert; Still, company will be able to target 50% lead conversion at this probability cutoff. This is fine by company as they want to make phone calls to as many people as possible.
Also, company can train interns on effective sales pitches, in understanding customer needs and to handle objections. And equip them with scripts tailored for different customer personalities to make calls more personalized and impactful.

The company can evaluate the effectiveness this proposed strategy (lowered lead score threshold) by weekly reviews of call records, feedbacks and target achieved.
Based on the regular evaluation, company can adjust the threshold by looking into success rates and feedback from the sales team.

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.**

Answer:
During this phase, minimizing the rate of "useless" phone calls can be achieved by Increase the Probability Cutoff Threshold. In this approach, company can prioritize quality over quantity, thus reducing the likelihood of unsuccessful phone calls and saving time.

	prob	accuracy	sensi	speci
0.0	0.0	0.520038	1.000000	0.000000
0.1	0.1	0.585878	0.992661	0.145129
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0.9	0.9	0.625954	0.302752	0.976143

From the above table, we can observe that by focusing on candidates with lead score >70% (at highest probability of conversion) can get 57% leads that would convert with higher specificity of 89%. Allowing the sales team to avoid unnecessary interactions with leads by making fewer but more targeted calls.

Again, the company can evaluate the effectiveness of this strategy by monitoring conversion rates from the limited phone calls that are made and adjust the lead probability cutoff based on ongoing performance data to ensure phone calls continue to be highly impactful.

In order to ensure their productivity of the team during this period, company can encourage the sales team to engage in valuable tasks, such as improving their customer relationships, participating in training, creating new content on their website, conducting market research or supporting new initiatives.