**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 that most significantly contribute towards the probability of a lead getting converted are:

* **Total Time Spent on Website:** A higher 'Total Time Spent on Website' strongly *increases* the probability of conversion.
* **Page Views Per Visit:** A higher 'Page Views Per Visit' actually *decreases* the probability of conversion according to the model. This might seem counterintuitive, and could suggest that leads who browse many pages per visit are less focused or more exploratory and less likely to convert immediately.
* **Lead Quality:**  *higher* lead quality *increases* the probability of conversion and lower lead quality decreases the probability of conversion.

**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?**

* **Lead Origin:** 'Lead Origin' is a categorical variable (API, Landing Page Submission, Lead Add Form, Lead Import, Quick Add Form). The positive coefficient suggests that certain Lead Origins are more favorable for conversion.
* **Lead Source:** 'Lead Source' is also categorical (Google, Direct Traffic, Olark Chat, etc.). Similar to Lead Origin, certain Lead Sources are more likely to get conversions.
* **Tags:** 'Tags' represents different categories of lead status and intent. The positive coefficient suggests that leads with specific tags are more likely to convert.

**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.**

**Strategy for Aggressive Lead Conversion (Intern Period):**

To maximize lead conversion during the intern period, X Education should adopt a strategy that prioritizes **sensitivity**. This means aiming to capture as many potential converters as possible, even if it results in contacting some non-converting leads (accepting more false positives).

* **Lower the Probability Threshold:** Instead of using the optimal threshold of 0.4, **significantly lower the threshold** for classifying a lead as "potential" (predicted as 1). For example, try a threshold of **0.2 or even 0.1**. This will classify a larger pool of leads as potential converters.
* **Intern-Driven Outbound Calls:** Utilize the interns to make outbound phone calls to *all* leads classified as "potential" based on the lowered threshold.
* **Prioritize Volume:** The focus during this period should be on volume of outreach. The goal is to contact and engage with as many leads as possible, even if the conversion rate per call might be slightly lower.

**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.**

**Strategy for Minimizing Useless Calls (Target Reached Period):**

When the company has already reached its target and wants to minimize wasted effort on phone calls, the strategy should prioritize **specificity and precision**. This means focusing on contacting only the leads with the *highest* probability of conversion to reduce false positives and maximize the efficiency of sales team time.

* **Raise the Probability Threshold:** **Increase the probability threshold** for classifying a lead as "potential" (predicted as 1) significantly. For example, try a threshold of **0.6 or even 0.7**. This will drastically reduce the number of leads classified as potential converters, focusing only on the most promising ones.
* **Experienced Sales Team Focus:** Assign the experienced sales team members to focus *only* on the very high-probability leads identified by the raised threshold.
* **Minimize Outbound, Prioritize Inbound & High Score:** Minimize proactive outbound calls except to the highest-scoring leads. Focus on responding to inbound inquiries and nurturing only those leads who score very high on the model.