1. **Which are the top three variables in your model which contribute most towards the probability of a lead getting converted?**
   Ans: Based on the coefficient values in the model table, these are top 3 variables which contribute most towards the probability of a lead getting converted:
   - Lead Source_Welingak Website – 5.3887
   - Lead Source_Reference – 2.9253
   - Current_occupation_Working Professional – 2.6697

```
==================================================
                                              coef
--------------------------------------------------
const                                      -1.0236
Total Time Spent on Website                 1.0498
Lead Origin_Landing Page Submission        -1.2590
Lead Source_Olark Chat                      0.9072
Lead Source_Reference                       2.9253
Lead Source_Welingak Website                5.3887
Last Activity_Email Opened                  0.9421
Last Activity_Olark Chat Conversation      -0.5556
Last Activity_Others                        1.2531
Last Activity_SMS Sent                      2.0519
Specialization_Hospitality Management      -1.0944
Specialization_Others                      -1.2033
Current_occupation_Working Professional     2.6697
```

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?**
   Ans: Based on the coefficient values in the model table, these are top 3 variables which contribute most towards the probability of a lead getting converted:
   - Lead Source_Welingak Website – 5.3887
   - Lead Source_Reference – 2.9253
   - Current_occupation_Working Professional – 2.6697

```
==================================================
                                              coef
--------------------------------------------------
const                                      -1.0236
Total Time Spent on Website                 1.0498
Lead Origin_Landing Page Submission        -1.2590
Lead Source_Olark Chat                      0.9072
Lead Source_Reference                       2.9253
Lead Source_Welingak Website                5.3887
Last Activity_Email Opened                  0.9421
Last Activity_Olark Chat Conversation      -0.5556
Last Activity_Others                        1.2531
Last Activity_SMS Sent                      2.0519
Specialization_Hospitality Management      -1.0944
Specialization_Others                      -1.2033
Current_occupation_Working Professional     2.6697
```

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.**
   Ans:
   - Target leads who spends a lot of time on X-Education site (Total Time Spent on Website variable). This variable has 1.0498 coefficient. So, sales team should also prioritize target leads who spent a more time on the website.
   - Create a sense of urgency by offering limited-time offers to the potential leads.
   - Target leads who came with reference (Lead Source_refrence) most likely to be converted.
   - The final prediction is calculated based on the optimal cutoff value of 0.345. To increase the sales, the company need to reach out all the leads with a conversion probability value under a cut off 0.3 (with value=1).
   - Focus on the target leads with high potential: Based on the given coefficients, target leads from these variables have high chance of conversion:
     1. Welingak Website: 5.3887
     2. Reference: 2.9253
     3. Working Professional: 2.6697
   - Coefficients of Last Activity_SMS Sent and Last Activity_Email opened variables are 2.0519 and 0.9421. Based on these values, these target leads have high conversion rate. So, sales team needs to concentrate on them.

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.**
   Ans:
   To minimize the rate of useless phone calls when they company reaches its sales target for a quarter before the deadline, the sales team can follow the mentioned strategy:
   - On strategy is to increase the lead score threshold. So, sales team employees focus on target leads who are more likely to be converted.
   - Avoid prioritizing students as they are occupied their studies and might not be interested in enrolling in a course which is designed for working professionals.
   - Get feedback from the existing customers in order to improve target leads conversion rate.
   - Work alongside the sales team, management, and data scientists to refine the model and collect feedback on successful and unsuccessful strategies.
   - Make the strategy for providing discounts to potential customers to encourage them.