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

   - Occupation, Lead Source, Lead Profile are the top three variables in the model which 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?**

   - Lead_Lead Add Form_Welingak Website, Occupation_Working Professional ,Lead_Lead Add Form_Reference are the top 3 categorical/dummy variables in the model those should be focused the most in order to increase the probability of 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.**

   - The sales team can afford to make high number of calls. So false negatives must be minimized (this relates to sensitivity), which means we need to have tradeoff between sensitivity and specificity in such a way that high sensitivity is desirable.

prob	accuracy	sensitivity	specificity
0.0	0.363202	1.000000	0.000000
0.1	0.492472	0.974722	0.217416
0.2	0.646713	0.875632	0.516148
0.3	0.797282	0.704752	0.850058
0.4	0.797282	0.704752	0.850058
0.5	0.797650	0.704752	0.850634
0.6	0.770107	0.432760	0.962514
0.7	0.745134	0.336704	0.978085
0.8	0.736320	0.301314	0.984429
0.9	0.736320	0.300303	0.985006

   - From the above table, 0.20 (Lead Score = 20) is the optimum point to take it as a cutoff probability for this period of time so that almost all of the potential leads can be identified and contacted to make the lead conversion more aggressive.

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.**

- As the sales team need to make phone calls only if it's extremely necessary, i.e. we want to minimize the rate of useless phone calls so false positives must be minimized(this relates to specificity).

prob	accuracy	sensitivity	specificity
0.0	0.363202	1.000000	0.000000
0.1	0.492472	0.974722	0.217416
0.2	0.646713	0.875632	0.516148
0.3	0.797282	0.704752	0.850058
0.4	0.797282	0.704752	0.850058
0.5	0.797650	0.704752	0.850634
0.6	0.770107	0.432760	0.962514
0.7	0.745134	0.336704	0.978085
0.8	0.736320	0.301314	0.984429
0.9	0.736320	0.300303	0.985006

- From the above table, **0.80 (lead score = 80)** is the optimum point to take it as a cutoff probability for such a condition so that only the potential leads to be converted can be identified and hence thereafter only focused to avoid unnecessary phone calls.