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, the following are the top three variables that contribute most towards the probability of a lead getting converted:

a) Total Time Spent on Website
b) Lead Add Form (from Lead Origin)
c) Had a Phone Conversation (from Last Notable Activity)

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 from the screen shot in the question above, the following are the top three categorical/dummy variables that should be focused the most in order to increase the probability of lead conversion :

a) Lead Add Form (from Lead Origin)
b) Had a Phone Conversation (from Last Notable Activity)
c) Working Professional (from What is your current occupation)

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: In order to make the sales aggressive, the company may contact all the leads which have a conversion probabilty (value = 1) under a cut off 0.3(Marked in Yellow)

	Converted	Converted_prob	Prospect ID	predicted	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	final_predicted	Lead_Score
0	0	0.679548	2240	1	1	1	1	1	1	1	1	0	0	0	1	68
1	0	0.553536	113	1	1	1	1	1	1	1	0	0	0	0	1	55
2	1	0.8012	413	1	1	1	1	1	1	1	1	1	1	0	1	80

	Converted	Converted_prob	Prospect ID	predicted	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	final_predicted	Lead_Score
		16	2													
3	0	0.102890	5573	0	1	1	0	0	0	0	0	0	0	0	0	10
4	0	0.012619	1109	0	1	0	0	0	0	0	0	0	0	0	0	1
5	0	0.040867	2282	0	1	0	0	0	0	0	0	0	0	0	0	4
6	1	0.819385	2976	1	1	1	1	1	1	1	1	1	1	0	1	82
7	0	0.460591	8431	0	1	1	1	1	1	0	0	0	0	0	1	46
8	1	0.757837	2770	1	1	1	1	1	1	1	1	1	0	0	1	76
9	1	0.995203	5790	1	1	1	1	1	1	1	1	1	1	1	1	100
10	1	0.963107	2943	1	1	1	1	1	1	1	1	1	1	1	1	96
11	0	0.211585	1196	0	1	1	1	0	0	0	0	0	0	0	0	21
12	1	0.293222	8874	0	1	1	1	0	0	0	0	0	0	0	0	29
13	0	0.116826	1491	0	1	1	0	0	0	0	0	0	0	0	0	12
14	0	0.096468	7676	0	1	0	0	0	0	0	0	0	0	0	0	10

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: In order to minimize the rate of useless phone calls, the company may contact all the leads which have a conversion probabilty (value = 1 highlighted in red color) under column 0.7. However, the flipside here would be that, we may miss out on those leads that are actually converted but then the model wrongly predicted them as not converted. (See yellow highlights in the image below).

	Converted	Converted_prob	Prospect ID	predicted	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	final_predicted	Lead_Score
0	0	0.679548	2240	1	1	1	1	1	1	1	1	0	0	0	1	68
1	0	0.553536	113	1	1	1	1	1	1	1	0	0	0	0	1	55
2	1	0.801216	4132	1	1	1	1	1	1	1	1	1	1	0	1	80
3	0	0.102890	5573	0	1	1	0	0	0	0	0	0	0	0	0	10
4	0	0.012619	1109	0	1	0	0	0	0	0	0	0	0	0	0	1
5	0	0.040867	2282	0	1	0	0	0	0	0	0	0	0	0	0	4
6	1	0.819385	2976	1	1	1	1	1	1	1	1	1	1	0	1	82
7	0	0.460591	8431	0	1	1	1	1	1	0	0	0	0	0	1	46

	Converted	Converted_prob	Prospect ID	predicted	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	final_predicted	Lead_Score
8	1	0.757837	2770	1	1	1	1	1	1	1	1	1	0	0	1	76
9	1	0.995203	5790	1	1	1	1	1	1	1	1	1	1	1	1	100
10	1	0.963107	2943	1	1	1	1	1	1	1	1	1	1	1	1	96
11	0	0.211585	1196	0	1	1	1	0	0	0	0	0	0	0	0	21
12	1	0.293222	8874	0	1	1	1	0	0	0	0	0	0	0	0	29
13	0	0.116826	1491	0	1	1	0	0	0	0	0	0	0	0	0	12
14	0	0.096468	7676	0	1	0	0	0	0	0	0	0	0	0	0	10