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

Ans : As per Below screenshot, the top three variables that contribute most towards the probability of a lead getting converted based on coefficient values are :
   a) Current_Occupation_Housewife (with highest coef value of 22.817)
   b) Lead Origin_Lead Add Form
   c) Current_Occupation_Working_Professional

	coef
const	0.3099
Total Time Spent on Website	1.0914
Lead Origin_Lead Add Form	3.0033
Current_Occupation_Housewife	22.8176
Current_Occupation_Unemployed	-0.3533
Current_Occupation_Working Professional	2.4476
Lead Source_Direct Traffic	-1.4663
Lead Source_Google	-1.0051
Lead Source_Organic Search	-1.1452
Lead Source_Referral Sites	-1.3463
Lead Source_Welingak Website	2.3107
Last Activity_Email Bounced	-1.4118
Last Activity_Olark Chat Conversation	-0.9441
Last Activity_SMS Sent	1.2046
Last Notable Activity_Modified	-0.8602
Last Notable Activity_Olark Chat Conversation	-1.1871

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 above screenshot the following are the top three categorical/dummy variables which should be focused the most on in order to increase the probability of lead conversion are :
   a) Lead Origin_Lead Add Form
   b) Current_Occupation_Working_Professional
   c) Lead Source_Welingak Website

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 : The final prediction is calculated based on an optimal cut off value of 0.33.
In order to make the sales aggressive, the company may contact all the leads which
have a conversion probability (value = 1) under a cut off 0.3 from below screenshot.

	ID	Converted	Converted_Prob	Predicted	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	final_Predicted
0	9196	1	0.897882	1	1	1	1	1	1	1	1	1	0	1
1	4696	0	0.415869	0	1	1	1	1	0	0	0	0	0	1
2	3274	0	0.367702	0	1	1	1	0	0	0	0	0	0	1
3	2164	0	0.047136	0	0	0	0	0	0	0	0	0	0	0
4	1667	1	0.583175	1	1	1	1	1	1	0	0	0	0	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6262	379	1	0.081448	0	0	0	0	0	0	0	0	0	0	0
6263	84	1	0.357334	0	1	1	1	0	0	0	0	0	0	1
6264	8313	0	0.095834	0	0	0	0	0	0	0	0	0	0	0
6265	7169	0	0.272181	0	1	1	0	0	0	0	0	0	0	0
6266	5825	1	0.998255	1	1	1	1	1	1	1	1	1	1	1

6267 rows × 14 columns

They cab also consider leads under a cut off 0.2 if company have time and resources.

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 minimise the rate of useless phone calls. Suggest a strategy
they should employ at this stage.

Ans : In order to minimise the rate of useless phone calls, the company may contact all the
leads which have a conversion probability (value = 1) (marked in yellow) under column 0.7 and
0.8. There can also be seen conflicts in some cases where leads are actually converted but
model is showing non convertible (marked in red).
But these can not have any impact as the target is already achieved.

	ID	Converted	Converted_Prob	Predicted	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	final_Predicted
0	9196	1	0.897882	1	1	1	1	1	1	1	1	1	0	1
1	4696	0	0.415869	0	1	1	1	1	0	0	0	0	0	1
2	3274	0	0.367702	0	1	1	1	0	0	0	0	0	0	1
3	2164	0	0.047136	0	0	0	0	0	0	0	0	0	0	0
4	1667	1	0.583175	1	1	1	1	1	1	0	0	0	0	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6262	379	1	0.081448	0	0	0	0	0	0	0	0	0	0	0
6263	84	1	0.357334	0	1	1	1	0	0	0	0	0	0	1
6264	8313	0	0.095834	0	0	0	0	0	0	0	0	0	0	0
6265	7169	0	0.272181	0	1	1	0	0	0	0	0	0	0	0
6266	5825	1	0.998255	1	1	1	1	1	1	1	1	1	1	1

6267 rows × 14 columns