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

→ The top 3 variables that contribute most are:
Lead Origin_Lead Add Form,
Occupation Working Professional,
Last Activity SMS Sent.
Along with it even Total Time Spent on Website is only numerical feature that contribute most towards the probability.

	coef	std err	z	P>|z|	[0.025	0.975]
const	-2.2515	0.103	-21.959	0.000	-2.452	-2.051
Total Time Spent on Website	1.1004	0.039	28.307	0.000	1.024	1.177
Lead Origin_Landing Page Submission	-0.3721	0.090	-4.146	0.000	-0.548	-0.196
Lead Origin_Lead Add Form	3.3334	0.196	16.970	0.000	2.948	3.718
Lead Source_Olark Chat	0.9067	0.115	7.903	0.000	0.682	1.132
Lead Source_Welingak Website	2.0522	0.745	2.755	0.006	0.592	3.512
Last Activity_Email Opened	1.1312	0.093	12.185	0.000	0.949	1.313
Last Activity_Others	1.3671	0.236	5.804	0.000	0.905	1.829
Last Activity_SMS Sent	2.1773	0.097	22.441	0.000	1.987	2.367
Occupation_Working Professional	2.8725	0.187	15.393	0.000	2.507	3.238
Specialization_Banking, Investment And Insurance	0.4767	0.182	2.620	0.009	0.120	0.833
Specialization_Finance Management	0.4249	0.112	3.798	0.000	0.206	0.644
Specialization_IT Projects Management	0.4238	0.181	2.336	0.019	0.068	0.779
Specialization_Rural and Agribusiness	0.8585	0.374	2.293	0.022	0.125	1.592

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?

→ The top 3 categorical/dummy variables that increase the probability are:
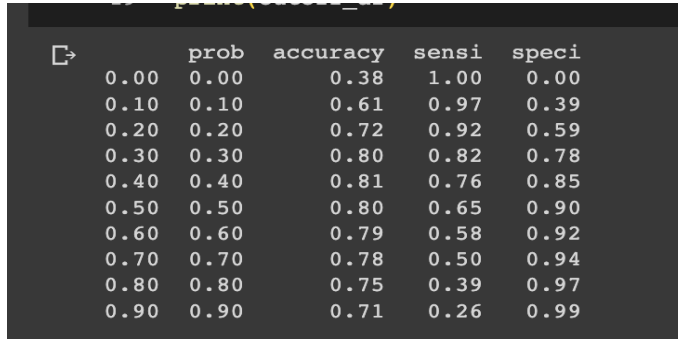   1. Lead Origin_Lead Add Form,
   2. Occupation Working Professional,
   3. Last Activity SMS Sent.

	coef	std err	z	P>|z|	[0.025	0.975]
const	-2.2515	0.103	-21.959	0.000	-2.452	-2.051
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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.

→ Though the optimal cutoff is 0.331 we can use below table to choose the low cutoff value for aggressive conversion.
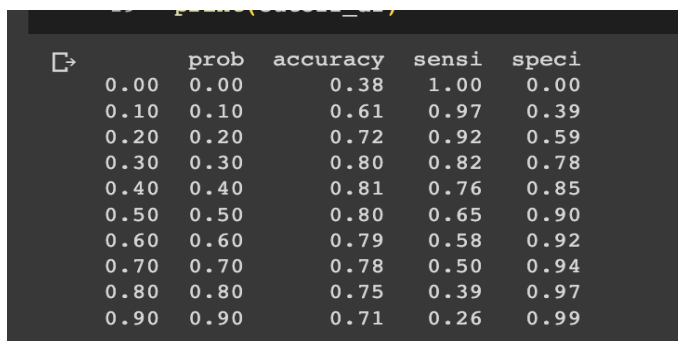
	prob	accuracy	sensi	speci
0.00	0.00	0.38	1.00	0.00
0.10	0.10	0.61	0.97	0.39
0.20	0.20	0.72	0.92	0.59
0.30	0.30	0.80	0.82	0.78
0.40	0.40	0.81	0.76	0.85
0.50	0.50	0.80	0.65	0.90
0.60	0.60	0.79	0.58	0.92
0.70	0.70	0.78	0.50	0.94
0.80	0.80	0.75	0.39	0.97
0.90	0.90	0.71	0.26	0.99

From above table we can see that the sensitivity for 0.2 cutoff results are higher. Also, we have slightly good accuracy and specificity for 0.2. Hence we can choose cutoff as 0.2 for higher aggressive conversion, since we have lot of resources that can be used to convert to higher lead scores.

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.

→ Since we meet our target before deadline, but still we want to increase the conversion then we use following table to get the best cutoff.

	prob	accuracy	sensi	speci
0.00	0.00	0.38	1.00	0.00
0.10	0.10	0.61	0.97	0.39
0.20	0.20	0.72	0.92	0.59
0.30	0.30	0.80	0.82	0.78
0.40	0.40	0.81	0.76	0.85
0.50	0.50	0.80	0.65	0.90
0.60	0.60	0.79	0.58	0.92
0.70	0.70	0.78	0.50	0.94
0.80	0.80	0.75	0.39	0.97
0.90	0.90	0.71	0.26	0.99

From above image we can say that Specificity for 0.7 is above 0.9 with respectable sensitivity hence we can use 0.7 as cutoff to increase the conversion rate. Here we have to call less people but with high chances of conversion.