

## Lead Score Assignment Subjective Questions Answers

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

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

	coef
const	-1.9142
Do Not Email	-1.1784
TotalVisits	1.0195
Total Time Spent on Website	4.5814
LeadOrigin_Landing Page Submission	-0.3852
LeadOrigin_Lead Add Form	3.5734
LeadSource_Olark Chat	1.3519
LeadSource_Welingak Website	2.0710
LastActivity_Not Sure	-1.2894
LastActivity_Olark Chat Conversation	-0.9919
LastActivity_SMS Sent	1.2751
CurrentOccupation_No Information	-1.2164
CurrentOccupation_Working Professional	2.3643
LastNotableActivity_Had a Phone Conversation	3.3881
LastNotableActivity_Modified	-0.7665
LastNotableActivity_Unreachable	1.6535

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 :

- Lead Add Form (from Lead Origin)
- Had a Phone Conversation ( from Last Notable Activity)
- 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 the below image, the final prediction is calculated based on an optimal cut off value of 0.37.

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.

	Converted	Converted_Prob	LeadId	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	0.060382	5493	0	1	0	0	0	0	0	0	0	0	0	0	6
1	0	0.091130	8064	0	1	0	0	0	0	0	0	0	0	0	0	9
2	0	0.028178	4716	0	1	0	0	0	0	0	0	0	0	0	0	3
3	0	0.363031	9117	0	1	1	1	1	0	0	0	0	0	0	0	36
4	1	0.457407	2402	0	1	1	1	1	1	0	0	0	0	0	1	46
5	0	0.028277	1796	0	1	0	0	0	0	0	0	0	0	0	0	3
6	0	0.028277	1120	0	1	0	0	0	0	0	0	0	0	0	0	3
7	0	0.048776	253	0	1	0	0	0	0	0	0	0	0	0	0	5
8	0	0.112288	1491	0	1	1	0	0	0	0	0	0	0	0	0	11
9	1	0.339175	2004	0	1	1	1	1	0	0	0	0	0	0	0	34
10	0	0.241118	1792	0	1	1	1	0	0	0	0	0	0	0	0	24
11	0	0.089429	1944	0	1	0	0	0	0	0	0	0	0	0	0	9
12	0	0.033105	3879	0	1	0	0	0	0	0	0	0	0	0	0	3
13	0	0.257376	4084	0	1	1	1	0	0	0	0	0	0	0	0	26
14	0	0.108187	1338	0	1	1	0	0	0	0	0	0	0	0	0	11
15	1	0.840133	4371	1	1	1	1	1	1	1	1	1	1	0	1	84
16	0	0.162256	6941	0	1	1	0	0	0	0	0	0	0	0	0	16
17	0	0.209861	6600	0	1	1	1	0	0	0	0	0	0	0	0	21
18	0	0.013878	6818	0	1	0	0	0	0	0	0	0	0	0	0	1
19	0	0.202494	5930	0	1	1	1	0	0	0	0	0	0	0	0	20

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 probability (value = 1) 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 blue highlights in the image below). This should not be a major cause for concern as the target has already been achieved.

[illegible]