Lead Score Assignment Subjective Questions

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

Solution:

Based on the coefficient values from below screeshot, 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) Welingak Website (from Last Source)

```
Total Time Spent on Website
                                                                         100.000000
Lead Origin Lead Add Form
                                                                          69.958628
Lead Source Welingak Website
                                                                          56.491443
What is your current occupation Working Professional
                                                                          52.049145
Lead Profile Lateral Student
                                                                          51.473087
Lead Profile Potential Lead
                                                                          30.201515
What matters most to you in choosing a course Better Career Prospects
                                                                          23.097181
Lead Source Olark Chat
                                                                          22.444905
                                                                         -19.415769
Specialization_Hospitality Management
Do Not Email
                                                                         -26.642543
Lead Profile Student of SomeSchool
                                                                         -55.394727
dtype: float64
```

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?

Solution:

Again, 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) Welingak Website (from Lead Source)
- 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.

Solution:

In the below image, the final prediction is calculated based on an optimal cut off value (Our model's cut-off is 0.3). In order to make the sales aggressive, the Sales Team may contact all the leads which have a conversion probability **below the optimum cut off** (0.3) (highlighted in yellow). Since they have a low probability, the Sales Team have to go aggressive with them and pursue hard for converting them into Potentials Customers.

	Converted	Converted_Prob	Lead Number	predicted	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	8.0	0.9	final_predicted	Lead_Score
0	0	0.280037	1871	0	1	1	1	0	0	0	0	0	0	0	0	28
1	0	0.270944	6795	0	1	1	1	0	0	0	0	0	0	0	0	27
2	0	0.324354	3516	0	1	1	1	1	0	0	0	0	0	0	1	32
3	0	0.618990	8105	1	1	1	1	1	1	1	1	0	0	0	1	62
4	0	0.280037	3934	0	1	1	1	0	0	0	0	0	0	0	0	28
5	1	0.991297	4844	1	1	1	1	1	1	1	1	1	1	1	1	99
6	0	0.143326	3297	0	1	1	0	0	0	0	0	0	0	0	0	14
7	1	0.996264	8071	1	1	1	1	1	1	1	1	1	1	1	1	100
8	0	0.200931	987	0	1	1	1	0	0	0	0	0	0	0	0	20
9	1	0.924747	7423	1	1	1	1	1	1	1	1	1	1	1	1	92
10	1	0.685056	1032	1	1	1	1	1	1	1	1	0	0	0	1	69
11	0	0.162596	6542	0	1	1	0	0	0	0	0	0	0	0	0	16
12	1	0.154130	4317	0	1	1	0	0	0	0	0	0	0	0	0	15
13	1	0.510136	6472	1	1	1	1	1	1	1	0	0	0	0	1	51
14	0	0.160178	712	0	1	1	0	0	0	0	0	0	0	0	0	16
15	0	0.120669	3960	0	1	1	0	0	0	0	0	0	0	0	0	12
16	0	0.120669	4654	0	1	1	0	0	0	0	0	0	0	0	0	12
17	0	0.021686	5902	0	1	0	0	0	0	0	0	0	0	0	0	2
18	0	0.120669	4691	0	1	1	0	0	0	0	0	0	0	0	0	12
19	1	0.237842	4341	0	1	1	1	0	0	0	0	0	0	0	0	24

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.

Solution:

In order to minimize the rate of useless phone calls, the company may contact all the leads which have a **higher probabilty** (highlighted in yellow color) like in our case greater than 0.3. Since there is a scarcity of Sales Staff, it is recommended that they focus on higher probability leads which have a higher chance of conversion.

	Converted	Converted_Prob	Lead Number	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	0.280037	1871	0	1	1	1	0	0	0	0	0	0	0	0	28
1	0	0.270944	6795	0	1	1	1	0	0	0	0	0	0	0	0	27
2	0	0.324354	3516	0	1	1	1	1	0	0	0	0	0	0	1	32
3	0	0.618990	8105	1	1	1	1	1	1	1	1	0	0	0	1	62
4	0	0.280037	3934	0	1	1	1	0	0	0	0	0	0	0	0	28
5	1	0.991297	4844	1	1	1	1	1	1	1	1	1	1	1	1	99
6	0	0.143326	3297	0	1	1	0	0	0	0	0	0	0	0	0	14
7	1	0.996264	8071	1	1	1	1	1	1	1	1	1	1	1	1	100
8	0	0.200931	987	0	1	1	1	0	0	0	0	0	0	0	0	20
9	1	0.924747	7423	1	1	1	1	1	1	1	1	1	1	1	1	92
10	1	0.685056	1032	1	1	1	1	1	1	1	1	0	0	0	1	69
11	0	0.162596	6542	0	1	1	0	0	0	0	0	0	0	0	0	16
12	1	0.154130	4317	0	1	1	0	0	0	0	0	0	0	0	0	15
13	1	0.510136	6472	1	1	1	1	1	1	1	0	0	0	0	1	51
14	0	0.160178	712	0	- 1	1	0	0	0	0	0	0	0	0	0	16
15	0	0.120669	3960	0	1	1	0	0	0	0	0	0	0	0	0	12
16	0	0.120669	4654	0	1	1	0	0	0	0	0	0	0	0	0	12
17	0	0.021686	5902	0	1	0	0	0	0	0	0	0	0	0	0	2
18	0	0.120669	4691	0	1	1	0	0	0	0	0	0	0	0	0	12
19	1	0.237842	4341	0	1	1	1	0	0	0	0	0	0	0	0	24