Assignment Subjective Questions

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

- Lead Source_Welingak Website: Good input the likelihood that a lead will become a customer increases with the amount of time they spend on the website. Salespeople should concentrate on these leads.
- What is your current occupation_Working Professional
- Lead Source_Reference: Valuable input there is a greater chance that a lead will convert if it comes from a reference because referrals offer assurances from friends and current users who can be trusted, in addition to cashbacks. Salespeople should concentrate on these leads.

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?
   - Lead Source_Welingak Website
   - Lead Source_Reference
   - Last Activity_Olark Chat Conversation

It appears that finding leads with a higher likelihood of conversion is aided by the Lead Source.

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.

- The final prediction in the graphic below is determined using an ideal cut off value of 0.35.

  The corporation may contact any leads with a conversion probability (value = 1) below a cut off of Converted predicted in order to increase sales aggressively.

	Convert	Convert_Prob	Pros_ID	Convert_predicted	Lead_Score
0	0	0.132092	6205	0	13
1	1	0.198586	1294	0	20
2	0	0.068979	7629	0	7
3	1	0.087542	7456	0	9
4	1	0.897971	5346	1	90
5	1	0.513576	5526	1	51
6	0	0.178630	3636	0	18
7	0	0.068979	5166	0	7
8	0	0.157735	6775	0	16
9	0	0.068979	4236	0	7
10	1	0.243561	6117	0	24
11	0	0.302063	8965	0	30
12	0	0.068979	3208	0	7
13	0	0.378502	569	1	38
14	0	0.068979	7436	0	7
15	0	0.350153	815	1	35
16	0	0.162940	7589	0	16
17	1	0.420169	715	1	42
18	0	0.186814	6668	0	19
19	0	0.064667	7318	0	6

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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.

The organisation may get in touch with any lead that has a conversion probability (value = 1, indicated in yellow/red) under column 0.6 in an effort to reduce the number of pointless phone calls. On the other hand, there is a chance that we will overlook leads that do convert but were incorrectly flagged by the model as non-converting. (Look at the image below, the red/yellow accents). Since the goal has already been reached, there shouldn't be any significant reason to be concerned.

	Prospect ID	Converted	Convert_Prob	Convert_predicted	Lead_Score	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0	1	1	0.537556	1	54	1	1	1	1	1	1	0	0	0	0
1	2	0	0.511297	1	51	1	1	1	1	1	1	0	0	0	0
2	3	0	0.215816	0	22	1	1	1	0	0	0	0	0	0	0
3	4	1	0.118119	0	12	1	1	0	0	0	0	0	0	0	0
4	5	0	0.488256	1	49	1	1	1	1	1	0	0	0	0	0
5	6	1	0.141295	0	14	1	1	0	0	0	0	0	0	0	0
6	7	0	0.971812	1	97	1	1	1	1	1	1	1	1	1	1
7	8	0	0.900506	1	90	1	1	1	1	1	1	1	1	1	1
8	9	0	0.415436	1	42	1	1	1	1	1	0	0	0	0	0
9	10	0	0.598664	1	60	1	1	1	1	1	1	0	0	0	0
10	11	0	0.441732	1	44	1	1	1	1	1	0	0	0	0	0
11	12	1	0.267521	0	27	1	1	1	0	0	0	0	0	0	0
12	13	1	0.819365	1	82	1	1	1	1	1	1	1	1	1	0
13	14	1	0.762105	1	76	1	1	1	1	1	1	1	1	0	0
14	15	0	0.985558	1	99	1	1	1	1	1	1	1	1	1	1
15	16	0	0.527264	1	53	1	1	1	1	1	1	0	0	0	0
16	17	0	0.364324	1	36	1	1	1	1	0	0	0	0	0	0
17	18	0	0.755081	1	76	1	1	1	1	1	1	1	1	0	0
18	19	1	0.002666	0	0	1	0	0	0	0	0	0	0	0	0
19	20	0	0.156579	0	16	1	1	0	0	0	0	0	0	0	0