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

These three variables are the top three variables (referring to the coefficient value that they hold) which contribute towards the probability of a lead getting converted.

	coef	std err	Z	P> z	[0.025	0.975]
const	-1.8073	0.075	-24.125	0.000	-1.954	-1.660
Total Time Spent on Website	3.7361	0.172	21.706	0.000	3.399	4.073
L_Origin_Lead Add Form	2.8227	0.227	12.446	0.000	2.378	3.267
L_Source_Direct Traffic	-0.6246	0.088	-7.061	0.000	-0.798	-0.451
L_Source_Referral Sites	-0.7696	0.414	-1.860	0.063	-1.580	0.041
L_Source_Welingak Website	2.0371	0.763	2.668	0.008	0.541	3.533
LAct_Email Bounced	-2.0231	0.442	-4.574	0.000	-2.890	-1.156
LAct_SMS Sent	1.1514	0.083	13.807	0.000	0.988	1.315
Occupation_Working Professional	2.4165	0.199	12.143	0.000	2.026	2.807
Lead Profile_Potential Lead	1.3744	0.098	14.045	0.000	1.183	1.566
Lead Profile_Student of SomeSchool	-2.1280	0.470	-4.528	0.000	-3.049	-1.207
N_Act_Unreachable	2.3274	0.827	2.814	0.005	0.707	3.948

<u>Total Time Spent on Website</u> – This gives us the total time spent on a website (X Education) by a visitor <u>Lead Origin</u> – How was the lead captured through the many sources that would link the education platform to the user

<u>Occupation</u> – As to what the visitor selected is engaged currently.

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:

	coef	std err	Z	P> z	[0.025	0.975]
const	-1.8073	0.075	-24.125	0.000	-1.954	-1.660
Total Time Spent on Website	3.7361	0.172	21.706	0.000	3.399	4.073
L_Origin_Lead Add Form	2.8227	0.227	12.446	0.000	2.378	3.267
L_Source_Direct Traffic	-0.6246	0.088	-7.061	0.000	-0.798	-0.451
L_Source_Referral Sites	-0.7696	0.414	-1.860	0.063	-1.580	0.041
L_Source_Welingak Website	2.0371	0.763	2.668	0.008	0.541	3.533
LAct_Email Bounced	-2.0231	0.442	-4.574	0.000	-2.890	-1.156
LAct_SMS Sent	1.1514	0.083	13.807	0.000	0.988	1.315
Occupation_Working Professional	2.4165	0.199	12.143	0.000	2.026	2.807
Lead Profile_Potential Lead	1.3744	0.098	14.045	0.000	1.183	1.566
Lead Profile_Student of SomeSchool	-2.1280	0.470	-4.528	0.000	-3.049	-1.207
N_Act_Unreachable	2.3274	0.827	2.814	0.005	0.707	3.948

Total Time Spent on Website

L_Origin_Lead Add Form

N_Act_Unreachable

The above three are the 3 categorical/dummy variables in the model which should be focussed the most on in order to increase the probability of lead conversion.

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 order to make the sales approach aggressive, we can contact all the leads that have a probability value of 1 under a cutoff range of 0.30 be converted so that we are able to reach out to all the customers who are indicatively joining the course. By increasing the prospects, we can reduce the cut-off to 0.3 so that more people can be approached in order to be converted into the customers.

	Converted	Conversion_Prob	LeadID	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	1	0.572459	8321	1	1	1	1	1	1	1	0	0	0	0	1	57
1	1	0.572459	1612	1	1	1	1	1	1	1	0	0	0	0	1	57
2	0	0.232154	6159	0	1	1	1	0	0	0	0	0	0	0	0	23
3	1	0.852536	8384	1	1	1	1	1	1	1	1	1	1	0	1	85
4	1	0.572459	5291	1	1	1	1	1	1	1	0	0	0	0	1	57
5	0	0.232154	7998	0	1	1	1	0	0	0	0	0	0	0	0	23
6	0	0.287226	1495	0	1	1	1	0	0	0	0	0	0	0	0	29
7	1	0.998139	5817	1	1	1	1	1	1	1	1	1	1	1	1	100
8	1	0.572459	3307	1	1	1	-1	1	1	1	0	0	0	0	1	57
9	1	0.987052	4675	1	1	1	1	1	1	1	1	1	1	1	1	99
10	1	0.852536	4983	1	1	1	1	1	1	1	1	1	1	0	1	85
11	0	0.287226	2327	0	1	1	1	0	0	0	0	0	0	0	0	29
12	0	0.287226	6233	0	1	1	1	0	0	0	0	0	0	0	0	29
13	1	0.986552	4940	1	1	1	1	1	1	1	1	1	1	1	1	99
14	0	0.572459	8485	1	1	1	1	1	1	1	0	0	0	0	1	57
15	0	0.501149	8553	1	1	1	1	1	1	1	0	0	0	0	1	50
16	1	0.523571	2387	1	1	1	1	1	1	1	0	0	0	0	1	52
17	1	0.958233	262	1	1	1	1	1	1	1	1	1	1	1	1	96
18	0	0.287226	2366	0	1	1	1	0	0	0	0	0	0	0	0	29
19	0	0.202880	5609	0	1	1	1	0	0	0	0	0	0	0	0	20
20	0	0.572459	3199	1	1	1	1	1	1	1	0	0	0	0	1	57
21	1	0.202880	6484	0	1	1	1	0	0	0	0	0	0	0	0	20
22	1	0.501149	3190	1	1	1	1	1	- 1	1	0	0	0	0	1	50
23	0	0.202880	169	0	1	1	1	0	0	0	0	0	0	0	0	20
24	1	0.458197	4757	0	1	1	1	1	- 1	0	0	0	0	0	0	46

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:

So looking into the dataset that we were analyzing, we can say that the people who have come through **referrals**, people who are **working professionals** and those who **communicate through the mail or SMS** have a **higher probability of getting converted** into taking up a course. The strategy would be to consider the people who would fall in these categories and have them approached to convince taking up the courses where they may take interest and enroll.

	Converted	Conversion_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	1	0.572459	8321	1	1	1	1	1	1	1	0	0	0	0	1	57
1	1	0.572459	1612	1	1	1	1	1	1	1	0	0	0	0	1	57
2	0	0.232154	6159	0	1	1	1	0	0	0	0	0	0	0	0	23
3	1	0.852536	8384	1	1	1	1	1	1	1	1	1	1	0	1	85
4	1	0.572459	5291	1	1	1	1	1	1	1	0	0	0	0	1	57
5	0	0.232154	7998	0	1	1	1	0	0	0	0	0	0	0	0	23
6	0	0.287226	1495	0	1	1	1	0	0	0	0	0	0	0	0	29
7	1	0.998139	5817	1	1	1	1	1	1	1	1	1	1	1	1	100
8	1	0.572459	3307	1	1	1	1	1	1	1	0	0	0	0	1	57
9	1	0.987052	4675	1	1	1	1	1	1	1	1	1	1	1	1	99
10	1	0.852536	4983	1	1	1	1	1	1	1	1	1	1	0	1	85
11	0	0.287226	2327	0	1	1	1	0	0	0	0	0	0	0	0	29
12	0	0.287226	6233	0	1	1	1	0	0	0	0	0	0	0	0	29
13	1	0.986552	4940	1	1	1	1	1	1	1	1	1	1	1	1	99
14	0	0.572459	8485	1	1	1	1	1	1	1	0	0	0	0	1	57
15	0	0.501149	8553	1	1	1	1	1	1	1	0	0	0	0	1	50
16	1	0.523571	2387	1	1	1	1	1	1	1	0	0	0	0	1	52
17	1	0.958233	262	1	1	1	1	1	1	1	1	1	1	1	1	96
18	0	0.287226	2366	0	1	1	1	0	0	0	0	0	0	0	0	29
19	0	0.202880	5609	0	1	1	1	0	0	0	0	0	0	0	0	20
20	0	0.572459	3199	1	1	1	1	- 1	1	1	0	0	0	0	1	57
21	1	0.202880	6484	0	1	1	1	0	0	0	0	0	0	0	0	20
22	1	0.501149	3190	1	1	1	1	- 1	1	1	0	0	0	0	1	50
23	0	0.202880	169	0	1	1	1	0	0	0	0	0	0	0	0	20
24	1	0.458197	4757	0	1	1	1	- 1	1	0	0	0	0	0	0	46

In order to avoid making useless phone calls, we can strategize on reaching out to customers who fall under the probability of getting converted under the cutoff of 0.5 as it seems to show more efficiency.