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

```
pd.DataFrame(important_feature).reset_index().sort_values(by=0,ascending=False)
```

| | index | 0 |
|---|---|---|
| 4 | Lead Source_Welingak Website | 4.43 |
| 2 | Lead Origin_Lead Add Form | 2.43 |
| 6 | What is your current occupation_Working Profes... | 1.65 |
| 3 | Lead Source_Olark Chat | 1.27 |
| 1 | Total Time Spent on Website | 1.11 |
| 5 | What is your current occupation_Missing | -0.84 |
| 0 | Do Not Email | -1.19 |
| 7 | Lead Quality_Low in Relevance | -1.50 |
| 8 | Lead Quality_Might be | -1.75 |
| 9 | Lead Quality_Missing | -3.51 |
| 10 | Lead Quality_Not Sure | -3.67 |
| 11 | Lead Quality_Worst | -6.07 |

Three most important feaures for lead conversion are:

```
-Lead Source_Welingak Website
-Lead Origin_Lead Add Form
-What is your current occupation_Working Professional
```

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?

Three most important categorical feaures for lead conversion are:

```
-Lead Source_Welingak Website
-Lead Origin_Lead Add Form
-What is your current occupation_Working Professional
```

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.

Choose a lower threshold value for Conversion Probability;

This will ensure high sensitiviy =  total number of actual Conversions correctly predicted / total no of actual Conversions

With decreasing probability thresholds, the sensitivity increases.

This will ensure that all the leads who are likely to convert is correctly identified. Also, some false cases will occur. But this will help the team in their aggressive strategy.

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.

Choose a higher threshold value for Conversion Probability;

This will ensure high Specificity = total no of actual non-Conversions correctly predicted / total number of actual non-Conversions

With increasing probability thresholds, the Specificity increases.

This will ensure that only the extrememly likely leads who are likely to convert is correctly identified. This will help the team to make only the most necessary calls.