# Lead Scoring Case Study Subjective Questions

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

Solution:

The Top three variables in our model which contribute the most towards the probability of a lead getting converted are

- ***Lead Origin***
- ***Last Notable Activity***
- ***Lead Source***

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:**

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 are

- ***lead_origin_lead add form*** (coefficient value of **2.9227**)
- ***last_notable_activity_had a phone conversation*** (coefficient value of **2.8404**)
- ***lead_source_welingak website*** (coefficient value of **2.6760**)

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:**

Below the chart shows the probability cut-offs and projected leads as per the model. It can be seen that lower the cut-off value is the projected leads are higher, so we can say that Probability cut-off is inversely proportional to the Projected leads.

| | Probability Cut-Off | Projected Leads |
|---|---|---|
| **0** | 0.05 | 8686.0 |
| **1** | 0.10 | 6662.0 |
| **2** | 0.15 | 5260.0 |
| **3** | 0.20 | 4827.0 |
| **4** | 0.25 | 4653.0 |
| **5** | 0.30 | 4522.0 |
| **6** | 0.35 | 3972.0 |
| **7** | 0.40 | 3571.0 |
| **8** | 0.45 | 3223.0 |
| **9** | 0.50 | 2932.0 |
| **10** | 0.55 | 2736.0 |
| **11** | 0.60 | 2581.0 |
| **12** | 0.65 | 2401.0 |
| **13** | 0.70 | 2243.0 |
| **14** | 0.75 | 1980.0 |
| **15** | 0.80 | 1743.0 |
| **16** | 0.85 | 1469.0 |
| **17** | 0.90 | 1115.0 |
| **18** | 0.95 | 796.0 |

A period of 2 months every year during which X Education hire some interns and during this phase, they wish to make the lead conversion more aggressive also X Education want almost all the potential leads to be converted and hence, want to make phone calls to as much of such people as possible we can reduce the cut-off range to increase the projected leads. As per the model cut-off is 0.47, we can lower it up to 0.30 to 0.35 where the projected lead can be 4522 to 3972. An important thing to note is that as we lower the cut-off value it would also decrease the precision.

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:**

Below the chart shows the probability cut-offs and projected leads as per the model. It can be seen that lower the cut-off value is the projected leads are higher, so we can say that Probability cut-off is inversely proportional to the Projected leads.

| | Probability Cut-Off | Projected Leads |
|---|---|---|
| 0 | 0.05 | 8686.0 |
| 1 | 0.10 | 6662.0 |
| 2 | 0.15 | 5260.0 |
| 3 | 0.20 | 4827.0 |
| 4 | 0.25 | 4653.0 |
| 5 | 0.30 | 4522.0 |
| 6 | 0.35 | 3972.0 |
| 7 | 0.40 | 3571.0 |
| 8 | 0.45 | 3223.0 |
| 9 | 0.50 | 2932.0 |
| 10 | 0.55 | 2736.0 |
| 11 | 0.60 | 2581.0 |
| 12 | 0.65 | 2401.0 |
| 13 | 0.70 | 2243.0 |
| 14 | 0.75 | 1980.0 |
| 15 | 0.80 | 1743.0 |
| 16 | 0.85 | 1469.0 |
| 17 | 0.90 | 1115.0 |
| 18 | 0.95 | 796.0 |

At times, the company reaches its target for a quarter before the deadline and during this time, the company wants the sales team to focus on some new work as well. Also 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, we can raise the cut-off value higher than 0.47 to target less customer but with high conversion value. We can set the cut-off range around 0.80 to 0.85 where the projected lead can be 1743 to 1469. Here the precision would be much high as we are contacting the hot leads which has high chances of conversion and will achieve the aim to avoid useless phone calls.