# Business Understanding Solutions.

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

Sol:

To determine the top three variables contributing most towards the probability of a lead getting converted in your logistic regression model, we can consider the coefficients from the regression results and their associated statistical significance. Additionally, the VIF (Variance Inflation Factor) values can be used to assess multicollinearity.

The larger the absolute value of the coefficient, the greater the impact on the log-odds. In your case, the top three variables contributing most towards the probability of a lead getting converted are:

* TotalVisits with a coefficient of 11.1489.
* Total Time Spent on Website with a coefficient of 4.4223.
* Lead Origin\_Lead Add Form with a coefficient of 4.2051.

1. 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?

Sol:

To identify the top three categorical/dummy variables that should be focused on the most to increase the probability of lead conversion, we can consider the coefficients from the logistic regression results. Here are the top three categorical/dummy variables based on their coefficients:

1. Lead Origin\_Lead Add Form:

Coefficient (coef): 4. 205123

P-value (P>|z|): 0.000 (highly statistically significant)

Interpretation: Leads generated through the "Lead Add Form" are associated with the highest increase in the log-odds of lead conversion. Focusing on optimizing and promoting this lead origin may contribute significantly to increasing conversion.

2. Last Notable Activity\_Unreachable:

Coefficient (coef): 2.7846

P-value (P>|z|): 0.001 (highly statistically significant)

Interpretation: If the last notable activity is "Unreachable," it is associated with a notable increase in the log-odds of lead conversion. Focusing on engaging leads through methods that make them unreachable may be an effective strategy.

1. Last Activity\_Had a Phone Conversation:

Coefficient: 2.755220

These variables have higher coefficients, indicating a stronger impact on the predicted probability of lead conversion. Focus on these variables to increase the probability of lead conversion.

1. 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.

Sol:

Since the company wants to be aggressive in lead conversion during the intern hiring period, it can follow these strategies:

* Lower Cutoff Threshold:

Consider lowering the probability cutoff to identify more potential leads.

* Increase Outreach:

Increase the number of phone calls to potential leads, especially those with higher predicted conversion probabilities.

* Tailored Communication:

Customize communication during phone calls based on the features that contribute significantly to conversion.

1. 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.

Sol:

During the time when the company wants to minimize useless phone calls, it can adopt the following strategies:

* Higher Cutoff Threshold:

Increase the probability cutoff to be more selective in identifying potential leads.

* Focus on High-Value Leads:

Prioritize leads with higher predicted conversion probabilities to maximize the efficiency of phone calls.

* Implement Automated Qualification:

Use automated systems or scoring mechanisms to pre-qualify leads before initiating phone calls.

* By adjusting the probability cutoff, the company can strike a balance between being aggressive and conservative in its lead conversion efforts based on the current business priorities.