

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

Answer

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In [532]: print(parameters)
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Lead Source_Welingak Website	5.388662
Lead Source_Reference	2.925326
Current_occupation_Working Professional	2.669665
Last Activity_SMS Sent	2.051879
Last Activity_Others	1.253061
Total Time Spent on Website	1.049789
Last Activity_Email Opened	0.942099
Lead Source_Olark Chat	0.907184
Last Activity_Olark Chat Conversation	-0.555605
const	-1.023594
Specialization_Hospitality Management	-1.094445
Specialization_Others	-1.203333
Lead Origin_Landing Page Submission	-1.258954

dtype: float64

As we can see, the final logistic Regression Model has 12 features.

Top 3 features that contributing positively to predict hot leads in the model are:

- Lead Source\_Welingak Website
- Lead Source\_Reference
- 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?**

Answer

The top 3 categorical/dummy variables in the model that be focused most to increase the probability of lead conversion are:

- Lead Source\_Welingak Website: 5.39
  - To generate more leads, we should increase our advertising budget/spend on the Welingak website.
- Lead Source\_Reference: 2.93
  - We can offer discounts for providing references that turn into leads, in order to promote more referrals.
- Current\_occupation\_Working Professional: 2.67
  - We should create targeted messaging and engage working professionals via communication channels based on their engagement impact.

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.**

Answer:

To increase lead conversion throughout the intern-hiring period, X Education can use the following technique based on specified variables and coefficients:

- Focus on high-potential leads. The coefficients indicate that leads from the following sources are more likely to convert:  
Welingak website: 5.388662; reference: 2.925326; working professional: 2.669665.
- The sales team should prioritize phoning leads from these sources during the internship hiring period.
- Use effective communication channels: Leads who have received SMS messages and opened emails are more likely to convert. Last Activity\_SMS Sent and Last Activity\_Email Opened have coefficients of 2.051879 and 0.942099, respectively. As a result, the sales staff should prioritize phoning leads who have received SMS messages or read emails from X Education.
- Increase website engagement: With a coefficient of 1.049789, Total Time Spent on the Website is an excellent predictor of the lead's interest in X Education's services. As a result, the sales staff should prioritize phoning leads who have spent an extended length of time on the website.

To increase lead conversion throughout the intern-hiring season, X Education should prioritize high-potential leads, use effective communication channels, maximize website interaction, and maintain a multi-channel 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.**

Answer:

To reduce the number of unnecessary phone calls when the company meets its sales target for the quarter before the deadline, the sales team can apply the following strategy:

- Prioritize lead nurturing through tailored emails, SMS, and targeted newsletters.

- Sending automated SMS to customers with high conversion rates.
- Collaborate with sales, management, and data scientists to improve the model and get input on successes and failures.
- Develop a strategy for offering discounts or incentives to persuade potential customers to take action.
- Use several communication channels, including as email, social media, and chatbots, to create relationships with potential customers.
- Collect input from existing clients to improve lead quality.