

## Assignment Subjective Questions

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

**Ans:** The top three variables with the highest positive coefficients contribute most positively to the probability of lead conversion. In this case, the variables with the highest positive coefficients are:

**Lead Origin\_Lead Add Form (3.7528):** This variable has the highest positive coefficient, indicating that leads originating from the "Lead Add Form" have a significant positive impact on the probability of conversion.

**Total Time Spent on Website (1.1003):** The second-highest positive coefficient suggests that the total time spent on the website by a lead positively contributes to the probability of conversion.

**Last Notable Activity\_Had a Phone Conversation (3.4555):** This variable has the third-highest positive coefficient, implying that leads with the last notable activity being a "Phone Conversation" contribute significantly to the likelihood of conversion.

These three variables, based on their coefficients, are the most influential in predicting the probability of a lead getting converted in the model.

**Q.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:** To identify the top three categorical/dummy variables that should be focused on to increase the probability of lead conversion, we can look at the variables with the highest positive coefficients, as these have the most positive impact on the likelihood of conversion. In the provided output, the top three categorical/dummy variables are:

**Lead Origin\_Lead Add Form:** This variable has the highest positive coefficient (3.7528), indicating that leads originating from the "Lead Add Form" have a significant positive impact on the probability of conversion. Focusing on strategies that enhance or target leads from this source may be beneficial.

**Last Notable Activity\_Had a Phone Conversation:** With a positive coefficient of 3.4555, leads with the last notable activity being a "Phone Conversation" contribute significantly to the likelihood of conversion. Strategies to engage leads

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through phone conversations may be effective in increasing conversion probabilities.

**Last Notable Activity\_Unreachable:** This variable has a positive coefficient of 1.6177, suggesting that leads with the last notable activity as "Unreachable" also contribute positively to the probability of conversion. Special attention to leads categorized as "Unreachable" and implementing strategies to reach and engage them could be valuable.

Focusing on these three categorical/dummy variables in your lead conversion strategies may enhance the overall probability of converting leads.

**Q.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:** Given the goal of making lead conversion more aggressive during the 2-month hiring period for interns, with a focus on contacting potential leads predicted as 1 by the model, the following strategy can be employed:

### **Prioritize High-Probability Leads:**

- Identify leads with a high probability of conversion based on the logistic regression model. These are the leads predicted as 1 by the model.
- Create a priority list ranking these leads based on their predicted probabilities.

### **Implement a Phone Call Campaign:**

- Initiate a targeted phone call campaign focused on the prioritized high-probability leads.
- Allocate resources, including the team of 10 interns, specifically to handle these phone calls.
- Develop a script for the phone calls that emphasizes the value proposition, benefits, and any special offers or promotions during this hiring period.

### **Personalized Follow-Up:**

- Customize the phone call script to address specific details about the leads, such as their interests, interactions on the website, or previous engagements with the company.

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- Emphasize the limited-time opportunity during the internship hiring phase to create a sense of urgency.

### **Utilize Lead Origin Information:**

- Leverage the information from the "Lead Origin\_Lead Add Form" variable, as it has the highest positive coefficient in the model. This indicates that leads from this source have a significant positive impact on conversion. Focus on reaching out to leads from this particular source.

### **Coordinate with Other Positive Variables:**

- Take advantage of other positive variables identified in the model, such as "Last Notable Activity\_Had a Phone Conversation" and "Last Notable Activity\_Unreachable." Coordinate efforts to engage leads with these activities, enhancing the chances of conversion.

### **Continuous Monitoring and Adjustment:**

- Regularly monitor the outcomes of the phone call campaign.
- Analyze the response rates and adjust the strategy as needed based on real-time feedback and results.

### **Feedback Loop with the Model:**

- Establish a feedback loop between the sales team and the model. Incorporate insights from the phone call campaign to continually improve the model's predictions.

By implementing a targeted phone call campaign focused on high-probability leads and aligning the strategy with the variables identified in the logistic regression model, X Education can maximize its chances of converting potential leads during this critical 2-month hiring period.

**Q.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:** During the period when the company has already reached its sales target for the quarter and wants to minimize the rate of useless phone calls while encouraging the sales team to focus on new work, the following strategy can be implemented:

### **Identify Low-Priority Leads:**

- Use the logistic regression model to identify leads with lower probabilities of conversion. Focus on those predicted as 0 by the model.

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- Create a list of leads that are less likely to convert during this period.

### **Implement Email and Online Engagement:**

- Shift the communication strategy towards less intrusive channels, such as email and online engagement.
- Craft targeted and relevant email campaigns to maintain communication with leads without the need for direct phone calls.

### **Content Marketing and Education:**

- Focus on content marketing and educational materials during this phase.
- Share valuable content, webinars, or other resources that can engage leads and provide them with useful information about the company's products or industry trends.

### **Segmentation and Targeted Messaging:**

- Segment leads based on their interests, preferences, or behavior on the website.
- Tailor messages to specific segments, delivering content that is most likely to resonate with each group.

### **Utilize Other Communication Channels:**

- Explore alternative communication channels such as social media, chatbots, or messaging apps to stay connected with leads.
- Implement chat support on the website to address inquiries and provide assistance without making phone calls.

### **Sales Team Training for New Initiatives:**

- Use the period of reaching the sales target early to provide training to the sales team on new initiatives or focus areas.
- Equip the team with the skills and knowledge necessary for the upcoming projects or tasks.

### **Feedback and Improvement Loop:**

- Encourage the sales team to provide feedback on the effectiveness of different communication channels and strategies.
- Use the feedback to continually refine the approach and optimize for future campaigns.

### **Monitor and Analyze Metrics:**

- Track engagement metrics for email campaigns, online content, and other communication channels.
- Analyze which channels and content types are most effective in maintaining engagement without relying on phone calls.

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By shifting the focus away from phone calls during this period and leveraging less intrusive communication channels, the company can maintain a positive relationship with leads while allowing the sales team to concentrate on new initiatives and projects.