

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

Sol: From the below screenshot of the coefficient of all the variables, The top three variables that contribute the most to the model are:

- Total Time Spent on the Website
- Reference (from Lead Source)
- Activity_Others (from the Last Notable Activity)

| | coef |
|--|---------|
| const | -0.0811 |
| Do Not Email | -1.3289 |
| Total Time Spent on Website | 0.9634 |
| Lead Origin_Landing Page Submission | -1.1635 |
| Lead Source_Olark Chat | 0.5870 |
| Lead Source_Reference | 2.5139 |
| Last Activity_Email Opened | 0.3245 |
| Last Activity_Olark Chat Conversation | -0.7438 |
| Last Activity_SMS Sent | 1.6276 |
| Specialization_Others | -0.7491 |
| What is your current occupation_Other | -1.2222 |
| What is your current occupation_Working Professional | 2.1033 |
| Last Notable Activity_Modified | -0.5295 |
| Last Notable Activity_Others | 1.4876 |

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?

Sol: From the above screenshot of the coefficient of all the variables, The top three categorical/dummy variables that contribute most to the model are:

- Last Activity: SMS Sent
- What is your current occupation_Working Professional
- Lead Source: Olark Chat

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.

Sol: Calling people is necessary if:

- People spend more time on websites, so making creative and interesting websites will engage and bring back customers.
- People who are working professionals
- Their most recent activity was either an SMS or a conversation via Olark Chat.
- People who are referenced by current enrolled people.

They should contact these people urgently at their prospect ID, as their lead score is above 85.

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In [147]: Should_contact_them = Final_predication.loc[Final_predication["Lead_Score"] >= 85, "Prospect ID"].values
print(f"The Sales team should contact these Prospect IDs:\n\n{' '.join(map(str, Should_contact_them))}")
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The Sales team should contact these Prospect IDs:

318, 1570, 8086, 1840, 6157, 8030, 1568, 4816, 3290, 1561, 7042, 5505, 7840, 6501, 8687, 3698, 3721, 8068, 8504, 6119, 9107, 4157, 4949, 7250, 6874, 6712, 6866, 4123, 7719, 5470, 1730, 7636, 2273, 5509, 2067, 8184, 2870, 8282, 3033, 88, 3937, 2018, 1199, 6977, 1559, 1263, 4313, 2729, 5559, 4252, 6666, 1803, 1897, 2614, 5363, 267, 4002, 5395, 7448, 6126, 2473, 7548, 3482, 2760, 3723, 6663, 8499, 9108, 2127, 4387, 3123, 3761, 5474, 2673, 8946, 1557, 9043, 7503, 212, 7653, 7082, 1406, 4453, 6728, 4734, 2115, 967, 5167, 6170, 4890, 8113, 7853, 2835, 2519, 2680, 8749, 4607, 4772, 5817, 5206, 6754, 9233, 6755, 4250, 6811, 1617, 3532, 2955, 4992, 8052, 7127, 5159, 6092, 7733, 2812, 8197, 1112, 6486, 5414, 5266, 3307, 2128, 2392, 2543, 5804, 1737, 7174, 7236, 2826, 1068, 4028, 7053, 4625, 2145, 3299, 7159, 4241, 3064, 2114, 7470, 3165, 1022, 8648, 6931, 8843, 7191, 4900, 1747, 4050, 9154, 7417, 8804, 4851, 1287, 7495, 718, 1470, 4803, 9044, 6458, 6362, 1783, 3090, 2926, 319, 5937, 5418, 6384, 3185, 4428, 6243, 3428, 2684, 5019, 3350, 8210, 7108, 9206, 5389, 4371, 833, 4775, 2943, 5747, 8897, 3132, 6499, 5807, 6725, 5502, 4112, 3095, 1527, 8112, 8343, 4868, 4902, 8057, 9016, 7835, 5697, 8074, 4505, 1314, 5425, 2935, 8115, 3522, 1558, 3463, 5686, 8576, 1575, 8483, 1595, 7579, 8047, 4560, 5362, 533, 7167, 2960, 5300, 472, 5026, 6163, 4359, 4786, 1739, 1254, 5706, 5032, 4779, 5664, 2439, 4671, 5049, 4081, 1374, 7259, 2022, 5364, 6315, 1061, 1502, 2481, 1770, 7065, 3396, 3031, 2748, 4791, 8205, 5137, 3827, 2337, 7909, 2122, 2089, 3424, 8101, 2664, 3570, 997, 8146, 6375, 693, 79, 6438, 1578, 6461, 3465, 5785, 1467, 8059, 8261, 1729, 2982, 7105, 1009, 8072, 7496, 4610, 8085, 2110, 8027, 6823, 7324, 2921, 8411, 6127, 2886, 7433, 2132, 4139, 1536, 1278, 5022, 2907, 5826, 4525, 8787, 8540, 8187, 835, 5810, 8943, 8098, 3921, 2075, 8466, 5459, 3172, 5571, 6727, 6330, 6046, 4708, 4793, 7893, 7736, 4913, 5337, 4963, 2166, 8094, 2131, 1157, 7040, 7472, 9034, 8190, 8104, 4802, 6651, 91, 6532, 4847, 2154, 4982, 3194, 3660, 3032, 7979, 5062, 8293, 4191, 7931, 5964, 2483, 6341, 8523, 5803, 7171, 1203, 1926, 2762, 4700, 3312, 8591, 6175, 3325, 5790, 4705, 2266, 8220, 6913, 1566, 7652, 1407, 3060, 4856, 5015, 8174, 8193, 4198, 8867, 5822, 3055, 4860, 8242, 2495, 2933, 7682, 9022, 2549, 5460, 1951, 2650, 561, 8123, 2984, 7688, 4125, 2271, 1722, 3210, 2622, 4466, 3077, 1350, 3836, 1030, 3555, 4295, 5819, 8396, 3078, 7288, 622, 7036

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.

Sol: They should concentrate more on other things in this situation, such automated messages and Email. In this manner, unless there is an emergency, contacting won't be necessary. The aforementioned approach may be applied to customers who have a strong likelihood of purchasing the course.