LEAD SCORING CASE STUDY
SUBMISSION

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X Education Business Objective

An education company named X Education sells online courses to industry professionals. Many professionals who are interested in the courses land on their website and browse for courses. The company markets its courses on several websites and search engines like Google. Once these people land on the website, they might browse the courses or fill up a form for the course or watch some videos. When these people fill up a form providing their email address or phone number, they are classified to be a lead. Moreover, the company also gets leads through past referrals. Once these leads are acquired, employees from the sales team start making calls, writing emails, etc. Through this process, some of the leads get converted while most do not. The typical lead conversion rate at X education is around 30%.
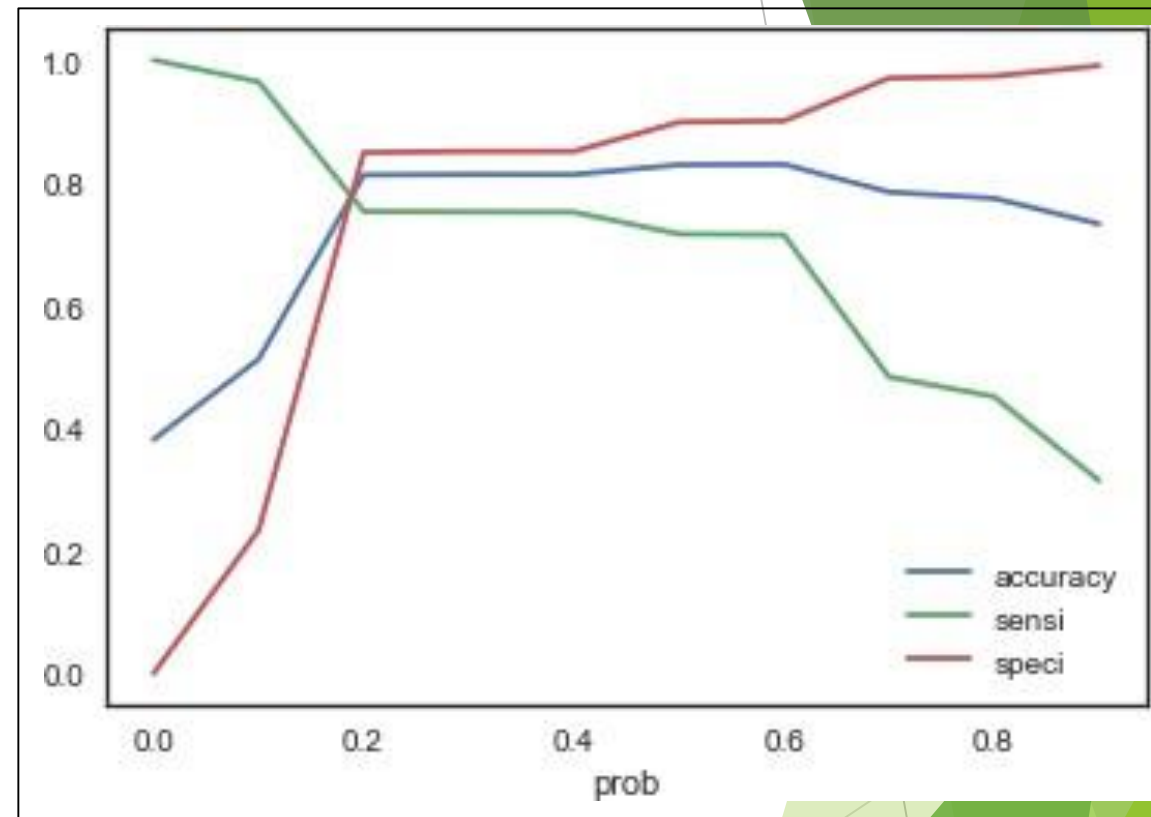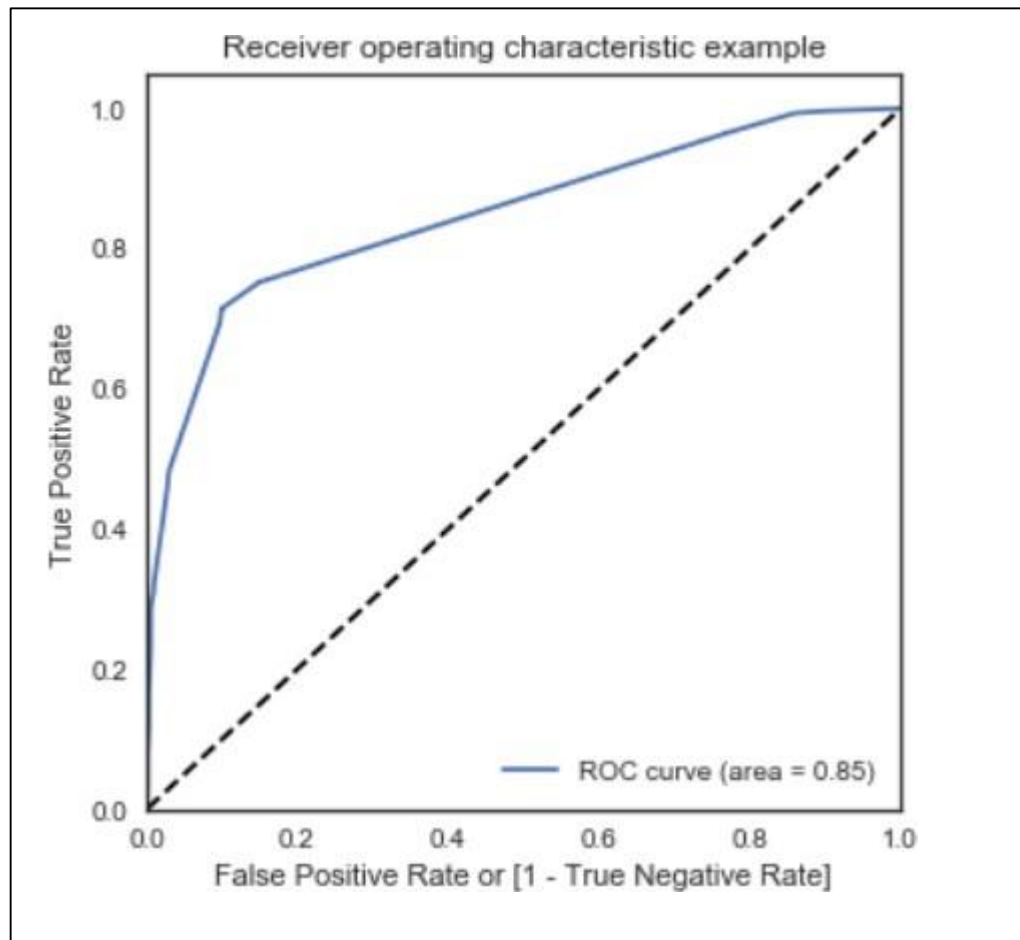
X Education Goals :

- Achieve Lead Conversion Rate of 80%.
- Identify 'Hot Leads' so that sales team focus more on communicating with potential leads than looking for everyone.
- Identify the customer attributes which contribute to Higher Lead Score.

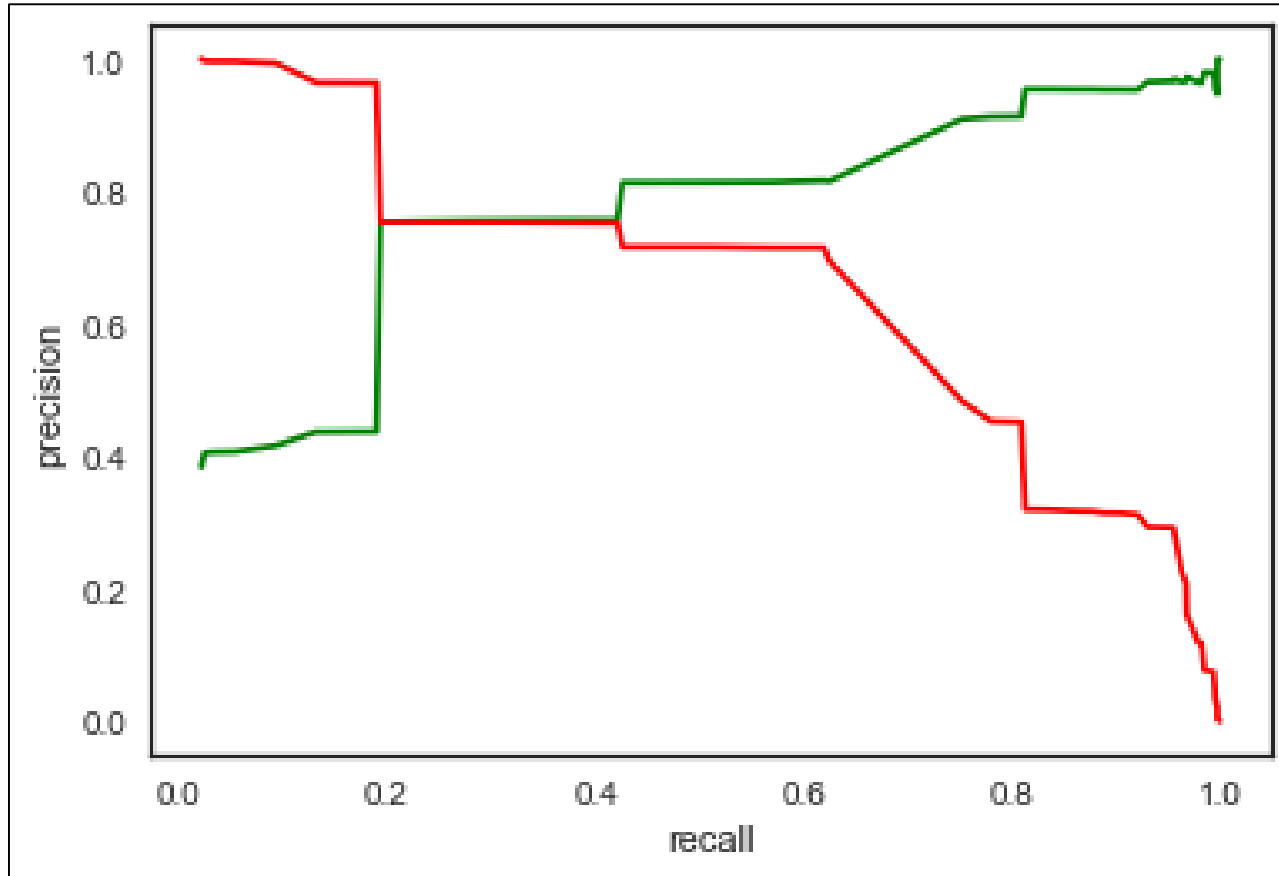# Business Objective: Analysis Methodology
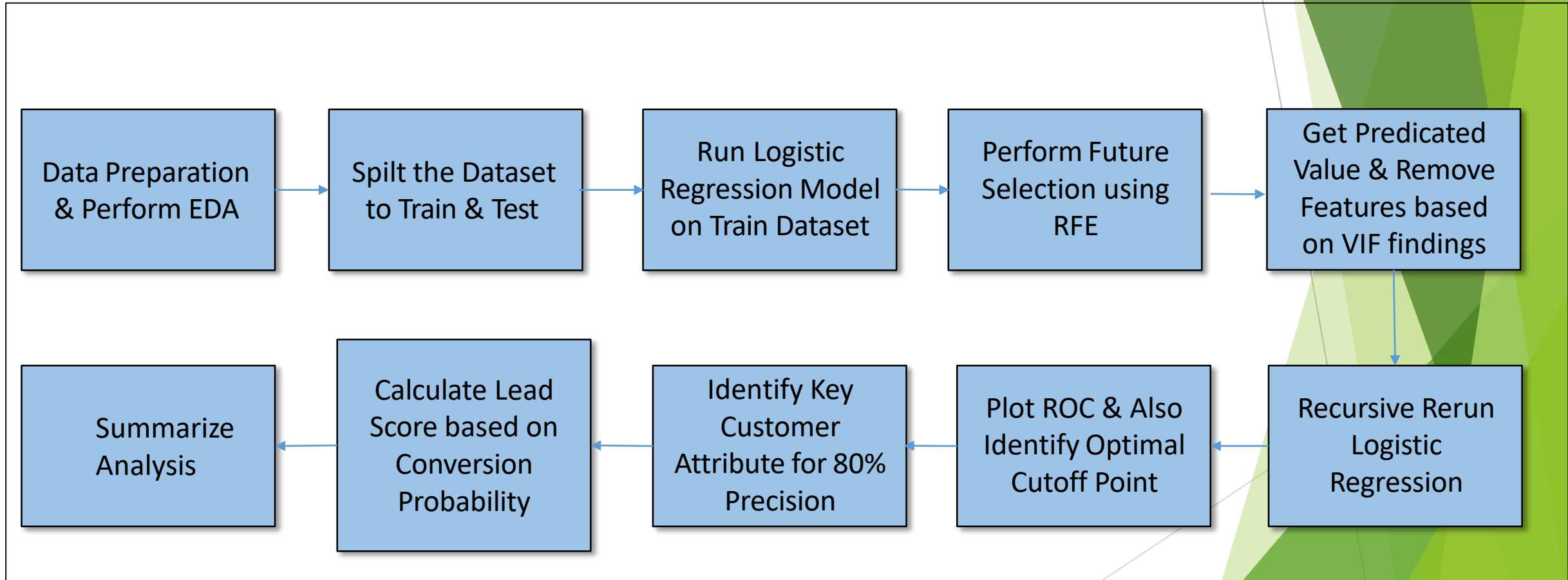
ROC & Optimal Cut-off Probability

- **ROC Curve Area = 0.85 (Significant Portion).**
- **Accuracy/Sensitivity/Specificity Converge @ 0.2 (Optimal Cut-off Probability)**

Precision & Recall

- **Precision & Recall Intersection Point 0.2-0.4. Considered 0.3 for Test Lead Prediction**

Lead Score & Conversion Probability

	LeadNumber	Converted	Conversion_Prob	final_predicted	Lead_Score
0	4269	1	0.624414	1	62.441415
1	2376	1	0.995234	1	99.523411
2	7766	1	0.751951	1	75.195063
3	9199	0	0.092898	0	9.289830
4	4359	1	0.967092	1	96.709179
5	9186	1	0.967796	1	96.779552
6	1631	1	0.808763	1	80.876305
7	8963	1	0.189602	0	18.960238
8	8007	0	0.189602	0	18.960238
9	5324	1	0.967796	1	96.779552
10	2558	0	0.189602	0	18.960238
11	8973	0	0.189602	0	18.960238
12	2935	1	0.421206	1	42.120552
13	2907	1	0.421206	1	42.120552

Summary

Results of Regression Model with RFE selection of 10 features

- **Overall Accuracy:**   **82 %**
- **Specificity:**   **86 %**
- **Sensitivity:**   **75 %**
- **Precision:**   **81 % (Achieved Lead Conversion Rate of 80%)**
- **Recall:**   **72 %**
- **Optimal Cut-off Probability**   **0.2**