LEAD SCORE CASE STUDY

BY: Anurag, Prajwal and Pranit

PROBLEM STATEMENT

- ❏ X education sells online courses to industry professionals.
- ❏ X education gets a lot of leads,its lead conversion rate is very poor.
- ❏ To make the process more efficient, the company wishes to identify the most potential leads.
- ❏ If they successfully identify the set of leads, the lead conversion rate should go up as the sales team will now be focusing more on communicating with the potential leads rather than making calls to everyone.

Business Objective:

- ❖ X education wants to know the most promising leads
- ❖ For that they want to build a Model which identifies the hot leads.
- ❖ Deployment for the model for future use.

SOLUTION METHODOLOGY

❖ **Data Cleaning and Data manipulation.**
1. Check and handle duplicate data
2. Check and handle NA values and missing values.
3. Check and handle outliers in data.

❖ **EDA**

❖ **Feature scaling and dummy variables and encoding of data.**

❖ **Classification technique:** Logistic regression used

❖ **Validation of the model**

❖ **Model presentation**
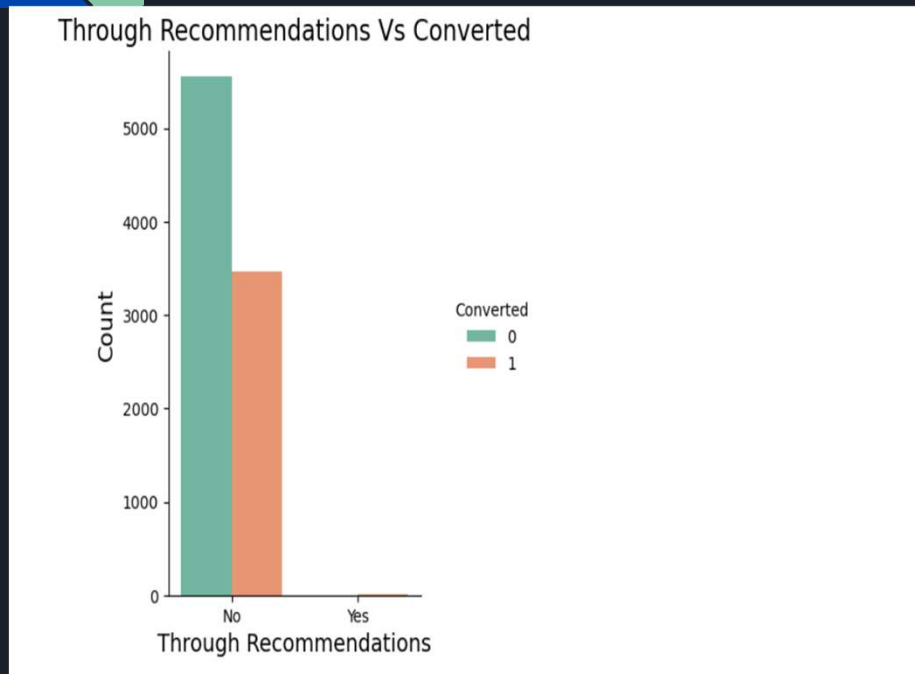
❖ **Conclusions and recommendations.**

EDA - Digital Advertisement v/s Converted Leads

Digital Advertisement Vs Converted
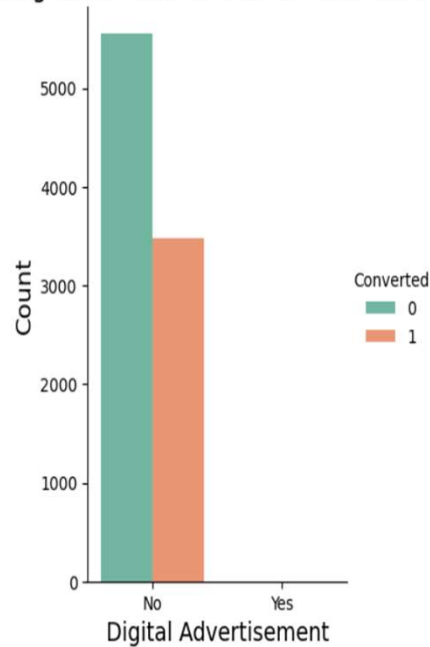
As seen in the bar chart, digital mode of advertisement has a high rate of conversion. Hence, X Education should focus on digital advertisements towards target audience in order to improve lead conversion rate.
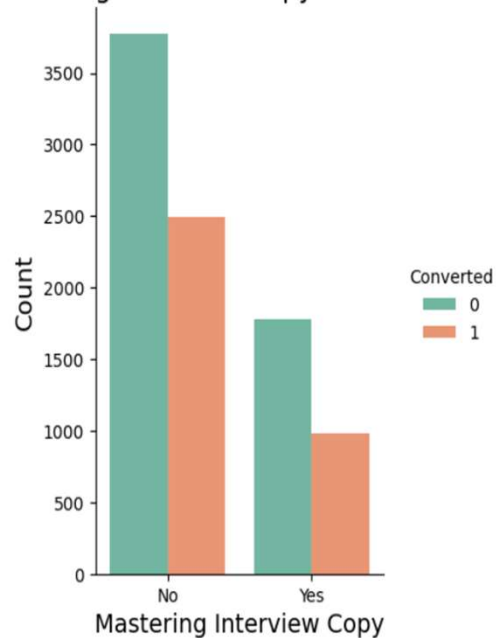
Recommendations v/s Converted Leads

Through Recommendations Vs Converted

As seen in the bar chart, leads obtained via recommendations has a high rate of conversion. Hence, X Education should focus on digital advertisements towards getting more referrals from existing customers.

Mastering interview copy v/s Converted Leads

As seen in the bar chart, leads who refused a mastering interview copy have a higher chance of conversion. Hence, X Education should focus on customers like this in order to improve lead conversion rate.
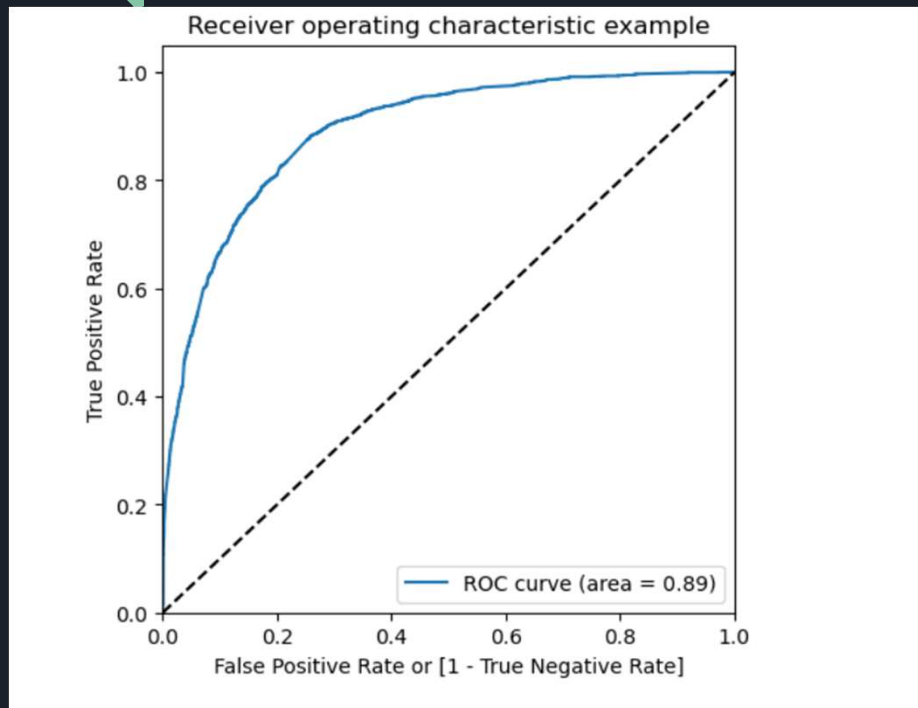
Model Performance

- Title: **Validation and Performance**
  - Subtitle: *Ensuring Model Accuracy and Effectiveness*
  - Content:
    - **Model Validation:**
      - Rigorous testing and validation procedures.
    - **Performance Metrics:**
      - Accuracy, precision, recall, and F1-score.
    - **Comparison to Baseline:**
      - Benchmarking against previous conversion rates.
    - **Real-world Testing:**
      - Application of the model to current leads.

Model Performance – ROC Curve

Receiver operating characteristic example

The ROC curve for the model shows an area under the curve of 0.89, pointing to a high accuracy.

Model Performance – Metrics Curve Plot
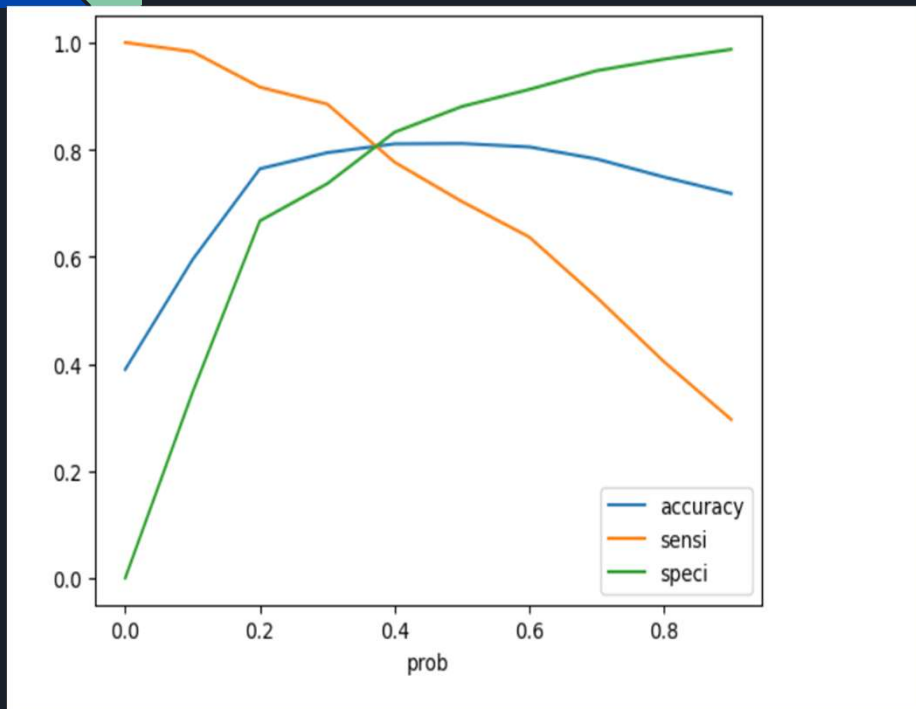
The curve plot for accuracy, sensitivity and specificity shows that a cutoff probability of around 0.37 can be used.

Future Implementation

Deployment and Future Strategies

- Subtitle: *Putting the Model into Action*
- **Content:**
    - **Model Deployment:**
        - Integrating the model into lead management systems.
    - **Continuous Improvement:**
        - Ongoing refinement based on real-world feedback.
    - **Scalability:**
        - Adapting the model for future business growth.
    - **Monitoring and Feedback Loop:**
        - Establishing mechanisms for continual model improvement.

Thank you