Summary Report

1. Understanding the Problem Statement

The assignment required analysing lead conversion data for X Education and leveraging predictive model outputs to devise actionable strategies for optimizing lead conversions. Specific focus areas included:

- Identifying key factors influencing lead conversion
- Minimizing unnecessary efforts after achieving quarterly targets

The objective was to provide data-driven insights and tailored strategies to improve resource allocation and maximize conversion efficiency

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2. Understanding the Dataset

The dataset included both numerical and categorical features:

- **Original Features**: Variables such as Total Visits, Total Time Spent on Website, Lead Origin, and Lead Source acted as primary indicators of lead activity and engagement.
- **Key Variables (Created During Modelling):** Lead Score, Converted_Prob, and Converted (target variable) were generated later during the modelling phase to quantify lead conversion probability and evaluate model performance effectively.

The target variable, **Converted**, identified leads that were successfully converted, aiding in evaluating model performance and strategy formulation

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3. Analysing Data and Model Outputs

The predictive model, a Generalized Linear Model (GLM) using logistic regression, highlighted the most influential variables:

- **Lead Origin_Lead Add Form (Coefficient: 4.6807)**
  Leads originating from the Lead Add Form; have a very strong positive impact on conversion probability

- **Total Time Spent on Website (Coefficient: 1.0980)**
  The more time a lead spends on the website, the higher the likelihood they will convert. Each additional unit of time spent on the website increases the conversion probability significantly

- **Lead Source_Olark Chat (Coefficient: 0.9592)**
  Leads whose source are from the Olark Chat have the higher the likelihood they will convert

Conversely, negative contributors such as **Direct** and **Last Notable Activity** are the suggested areas where engagement strategies can be improved

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4. Strategy Recommendations

1. **Aggressive Lead Conversion During Internship Periods**:

   To maximize lead engagement during the two-month internship phase:

- **Lower Threshold for Interns**: Interns targeted leads with scores above 30, engaging a broader pool for conversion.
- **Senior Staff Focus on High-Value Leads**: Leads scoring above 80 were prioritized by senior staff for personalized outreach.
- **Performance Monitoring**: Regular assessment ensured dynamic adjustments to improve conversion rates.

2. **Minimizing Effort Post-Target Achievement**:

   To optimize resources after quarterly targets were met:

   - **Automated Engagement**: Automated emails and chatbots were used for leads scoring below 90, minimizing manual efforts.
   - **High-Priority Focus**: Only leads scoring above 90 were escalated for phone calls.
   - **Segmentation**: Actively engaged leads (e.g., email clicks) were prioritized for personalized follow-ups.

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5. Key Learnings

- **Threshold-Based Prioritization**: Adjusting thresholds based on business needs improved both lead volume engagement and efficiency
- **Automation Benefits**: Leveraging automation for low-priority leads ensured continuous engagement while conserving resources
- **Strategic Allocation**: Balancing intern and senior staff efforts enhanced productivity and conversion outcomes
- **Effective Sales Pitch**: It should be aligned with the result of the model so that focus can be on the activities which improves conversion like more time spent on website

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Conclusion

This assignment emphasized the importance of integrating predictive analytics with business strategies. By focusing on impactful variables, automating routine tasks, and dynamically prioritizing leads, X Education can enhance its lead conversion process, optimize resource utilization, and scale these strategies to other operational areas.