

# **Presentation Title: Analysis of Leads Data for Business Insights**

## **Slide 1: Title Slide**

- **Title:** X Education Capstone
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## **Slide 2: Introduction**

- **Objective:** To analyze the leads data to derive actionable business insights.
- **Scope:** Focus on data preparation, visualization, and key findings.

## **Slide 3: Data Preparation**

- **Libraries Used:**
  - **numpy** for numerical operations
  - **pandas** for data manipulation
  - **matplotlib** and **seaborn** for visualization
- **Data Loading:**
  - Loaded data from **Leads.csv** and **Leads Data Dictionary.xlsx**.
- **Data Cleaning:**
  - Dropped duplicates and unnecessary columns.
  - Set appropriate column names for clarity.

## **Slide 4: Data Overview**

- **Data Shape:** (9240, 37)
- **Key Columns:**
  - Prospect ID, Lead Number, Lead Origin, Lead Source, Converted, Total Visits, etc.
- **Missing Values:** Identified and addressed missing data in key columns.

## **Slide 5: Data Visualization**

- **Visualizations Created:**
  - Distribution of leads by source.
  - Conversion rates across different lead origins.
  - Correlation heatmap to identify relationships between variables.
- **Insights from Visualizations:**
  - Certain lead sources yield higher conversion rates.
  - Visual patterns indicate potential areas for targeted marketing.

### **Slide 6: Key Findings**

- **Conversion Analysis:**
  - Conversion rates vary significantly by lead source.
  - Direct traffic and organic search show the highest conversion rates.
- **Customer Behavior:**
  - Majority of leads are from India, indicating a strong market presence.
  - High engagement metrics (total visits, time spent) correlate with higher conversion rates.

### **Slide 7: Business Implications**

- **Targeted Marketing:**
  - Focus on high-performing lead sources for marketing efforts.
  - Tailor campaigns based on customer behavior insights.
- **Resource Allocation:**
  - Allocate resources to optimize lead generation from effective channels.
  - Consider expanding outreach in regions with high lead potential.

### **Slide 8: Recommendations**

- **Data-Driven Strategy:**
  - Implement a data-driven approach to refine marketing strategies.
  - Regularly update and analyze lead data to adapt to market changes.
- **Continuous Monitoring:**
  - Establish to monitor lead performance and conversion rates.
  - Use A/B testing for marketing campaigns to identify effective strategies.

### **Slide 9: Conclusion**

- **Summary:** The analysis of leads data provides valuable insights into customer behavior and conversion strategies.
- **Next Steps:** Implement recommendations and continuously analyze data for ongoing improvement.