Summary

The lead scoring case study employed a logistic regression model to address specific business requirements, revealing valuable insights into lead conversion dynamics. Despite a substantial influx of leads, only a minority transition into paying customers, with a significant portion originating from India, particularly concentrated in Mumbai. There were columns which were high imbalanced, so we have dropped columns which are Search, Magazine, Newspaper Article, X Education Forums, Newspaper, Digital Advertisement, Through Recommendations, Receive More Updates About Our Courses, Update me on Supply Chain Content, Get updates on DM Content, and I agree to pay the amount through cheque. Also, we dropped columns Country, What matters most to you in choosing a course and Do Not Call since these had values were one values was dominating other values. We also found value counts for each categorical variable and understood their relation with Converted which is target variable.

To enhance data quality, columns featuring 'Select' labels necessitate mandatory selections, notably in fields like Customer Occupation and Specialization. Leads with higher engagement metrics, such as total visits and time spent on the platform, exhibit greater potential for conversion. We used RFE to get top 15 important feature to build our model. Using these features, we build logistic Regression models. Finally, we using 12 features, we build model and tested model with test data. We found accuracy, pression, recall for train and test models. It provided good results and model was not overfitting. Notably, many leads pursue courses for improved career prospects, predominantly specializing in Finance Management, with HR, Finance, and Marketing Management being high-probability conversion areas. Leveraging improved customer engagement tactics, particularly through email and call interactions, can significantly enhance conversion rates, especially among leads displaying activity like email opens. Additionally, implementing SMS communication could further bolster conversion efforts. Given the prevalence of unemployed leads, prioritizing engagement strategies tailored to this demographic emerges as a key focus for maximizing conversion potential.