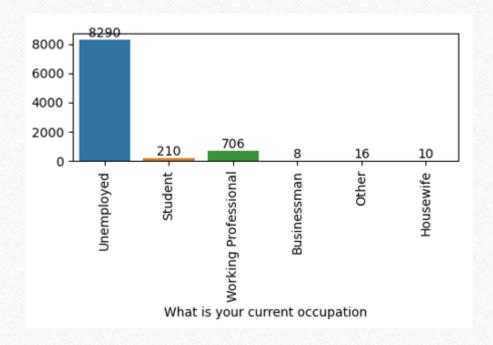
## Lead Scoring Case Study

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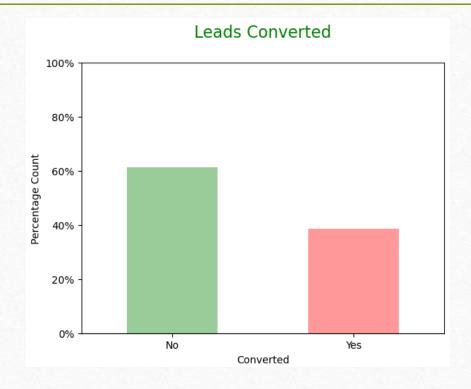
### Analysis and Goal Statement

- An analysis done for 'X Education' to find ways to get more industry professionals to join its courses.
- Build a logistic regression model to assign a lead score between 0 and 100 to each of the leads which can be used by the company to target potential leads.

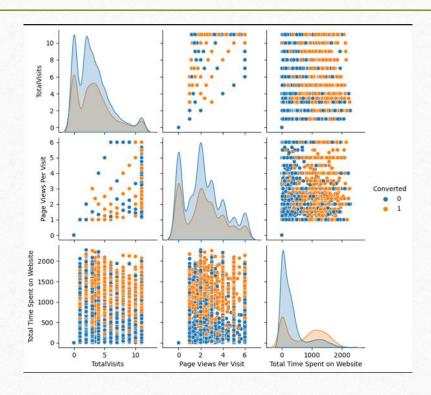
# Observation 1 : Maximum potential leads were Unemployed



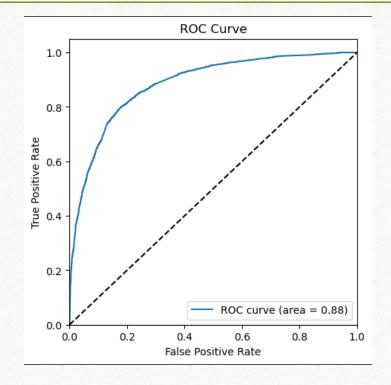
### Observation 2: Only 2 in 5 leads were converted.



**Observation 3:** From the below plots we see that the variables 'TotalVisits' & 'Page Views Per Visit' have a linear relationship



**Observation 4:** AS evident, the Area under ROC curve is 0.88 out of 1 which indicates a good predictive model



#### Conclusion

- The evaluation shows that the values of the performance metrics on the test set are very close to those of the train set. Hence, we can conclude that our model is performing very well with predicting the data.
- The model achieved a sensitivity of 80.27% on the test dataset with a cut-off threshold of 0.35.
- Sensitivity here reflects how many leads the model correctly identifies out of all potential converting leads.
- The CEO of X Education had aimed for a sensitivity target of approximately 80%, which this model meets.
- The model also reached an accuracy of 80.27%, aligning with the study's objectives.