



# Car Insurance

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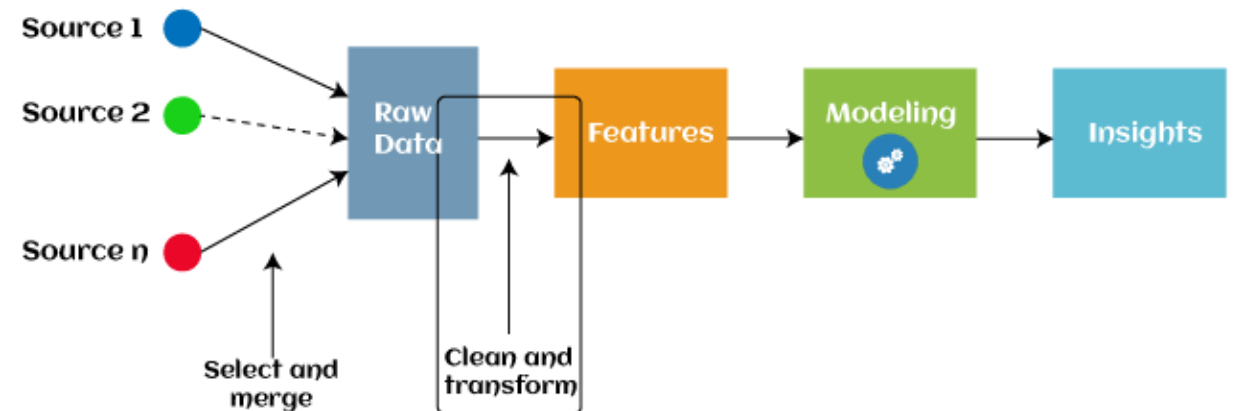


- By analysing customer behaviour, car insurance companies can assess the risk associated with each individual policyholder.
- Analysing customer behaviour can also help car insurance companies develop effective marketing strategies. By understanding the demographics, preferences, and behaviour patterns of their target audience, companies can tailor their marketing messages to better resonate with potential customers.

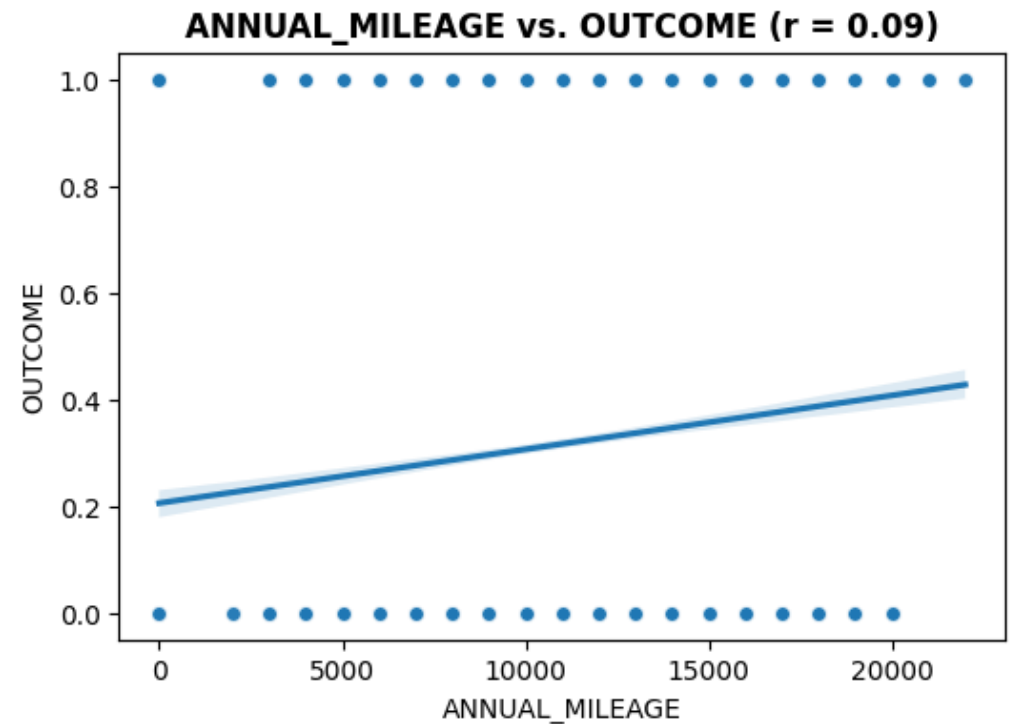
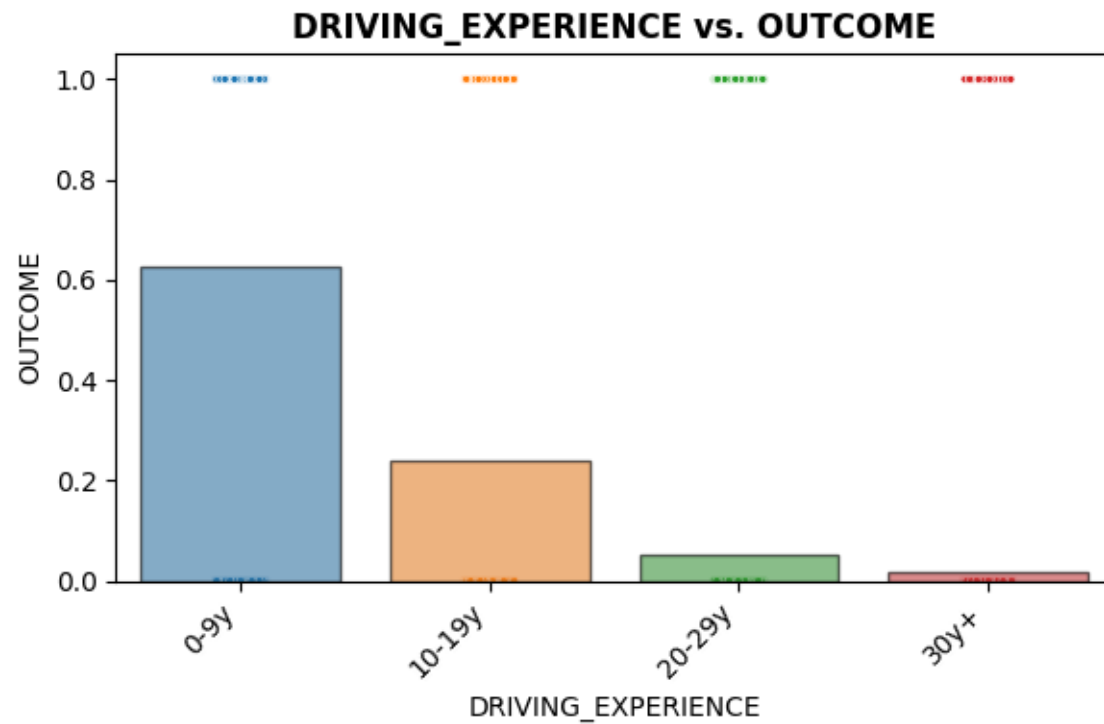
PROBLEM STATEMENT: THE BUSINESS WOULD LIKE TO ANALYZE CUSTOMER BEHAVIOR WHEN IT COMES TO CAR INSURANCE.

# Methodology

- For this classification problem we used a predefined dataset from Kaggle.
- The dataset consisted of 19 features and 10000 rows
- As part of the data cleaning, we removed unnecessary columns and filled all null values



# Results



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The final model had a test accuracy of 89%. The model could be used to determine the likelihood of a customer/potential customer processing a claim based on the input received

## Train Report

	precision	recall	f1-score	support
0.0	0.93	0.93	0.93	5144
1.0	0.84	0.85	0.85	2356
accuracy			0.90	7500
macro avg	0.89	0.89	0.89	7500
weighted avg	0.90	0.90	0.90	7500

## Test Report

	precision	recall	f1-score	support
0.0	0.89	0.89	0.89	1723
1.0	0.75	0.75	0.75	777
accuracy			0.85	2500
macro avg	0.82	0.82	0.82	2500
weighted avg	0.85	0.85	0.85	2500

# Future work

- Explore different data cleaning techniques.
- Create a frontend interface for employees to interact with.
- Explore different classification models to see if we can a better accuracy.





# The End

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