

# Online Shopping Behavior

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## Business Problem

A shopping website receives more clicks than sales, with fewer potential customers. That means they don't attract their target market, and they must adapt their marketing strategies to boost sales.



# Algorithms

```
graph TD; A[Algorithms] --- B[Logistics Regression 01]; A --- C[K-Nearest Neighbors 02]; A --- D[Decision Tree 03]; A --- E[Random Forest 04];
```

01

Logistics  
Regression

K-Nearest Neighbors

02

03

Decision Tree

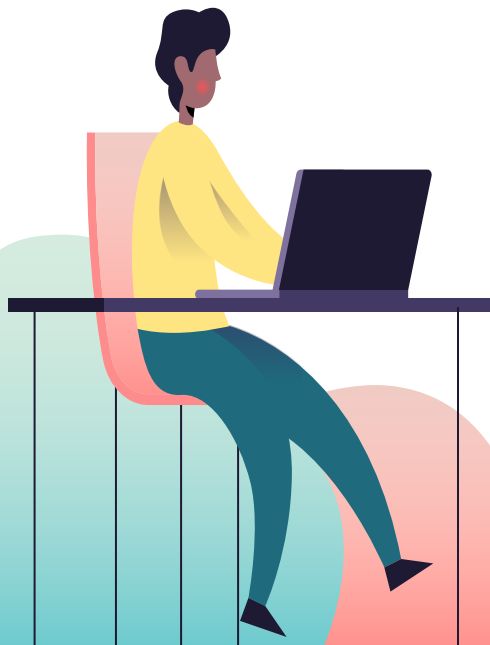
Random Forest

04

# Result



## Random Oversampling



### Models

F1

Accuracy

Logistics  
Regression

62%

84%

K-nearest  
neighbors

50%

76%

Decision  
Tree

56%

79%



Random  
Forest

65%

85%

XGBoost

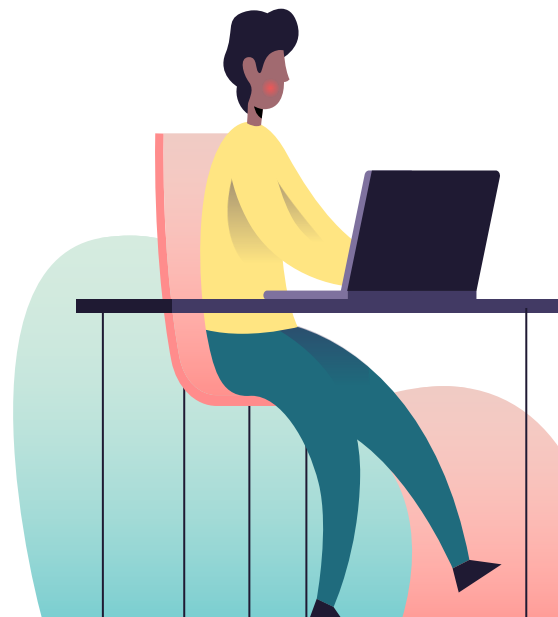
63%

83%

# Result



Tunned Models	F1	Accuracy
Logistics Regression	65%	87%
K-nearest neighbors	48%	80%
Decision Tree	59%	84%
★ Random Forest ★	67%	87%
XGBoost	64%	89%



# Insight

The business needs to adapt its digital marketing campaigns in order to improve its revenue by executing a strategy across all the channels through which consumers engage with the brand.



## Conclusion

The result from all the experiments we did, random forest with Random under sampling technique outperforms and predicted whether customers will purchase or not , with around 87% accuracy.





**Thank You for Your Attention 😊**

**Any questions about online shopping**

