Hotel Booking Cancelations

Business Cases for Data Science

NOVA IMS

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Major Topics

- Goals
- Findings
- Approach
- Deployment

Goals

- Predict bookings outcome
- Reduce Cancelations
- Insights of customer data
- Increase revenue and reputation

FINDINGS

PEOPLE WHO HAVE **SPECIAL REQUESTS** USUALLY DO **NOT CANCEL** THEIR BOOKINGS.

FURTHER THE **ADVANCE IN BOOKING** THE STAY, BIGGER IS THE PROBABILITY OF **CANCELLING IT**.

IF A PERSON HAS **CANCELED ONCE**, IS MORE LIKELY TO **CANCEL AGAIN**.

GROUP BOOKINGS TEND TO BE **MORE CANCELED** THAN OTHERS.

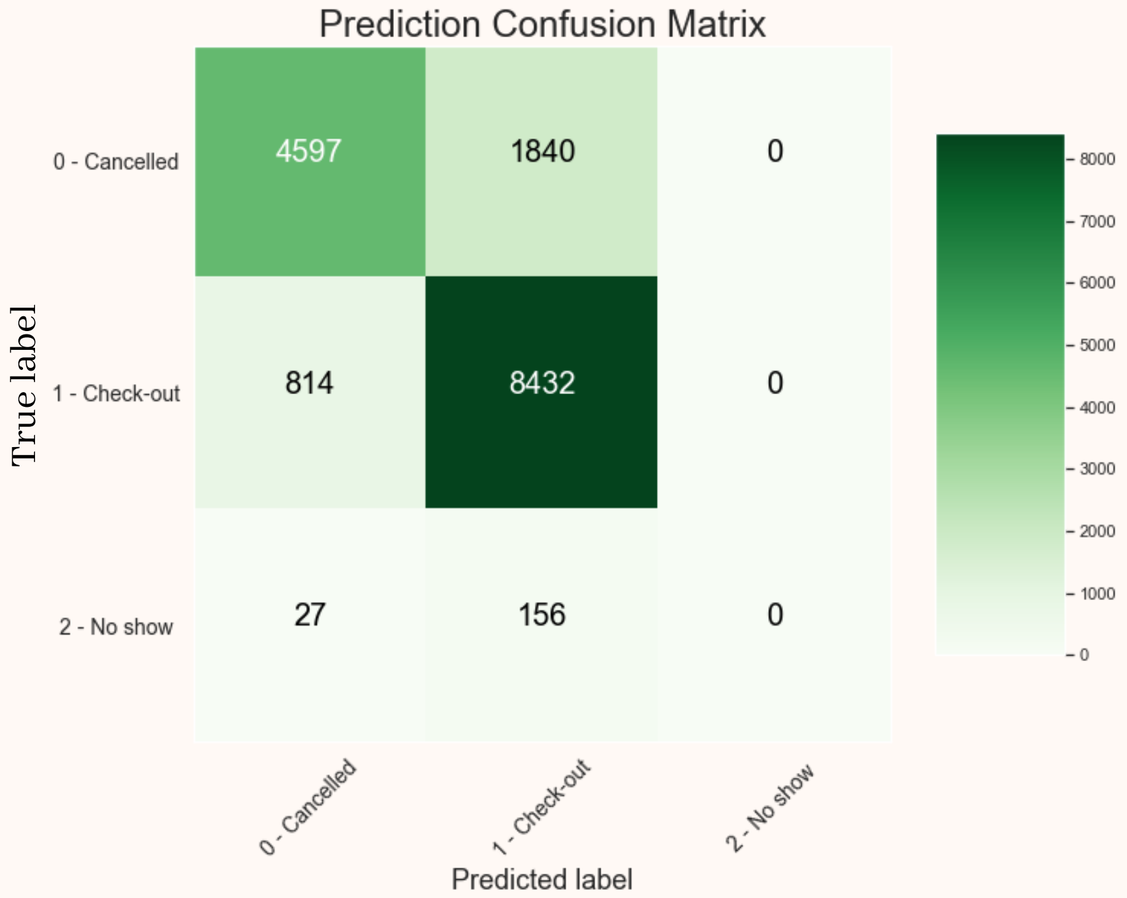
Results Evaluation

Best algorithm: Random Forest

Model overall accuracy of 82%

Predicts cancellations with a precision of 85%

Predicting the normal situations of check-out with a precision of 81%



No Show

Only happened a very small number of times.

In trying to predict the 'No shows' better would worsen overall and cancellations accuracy.

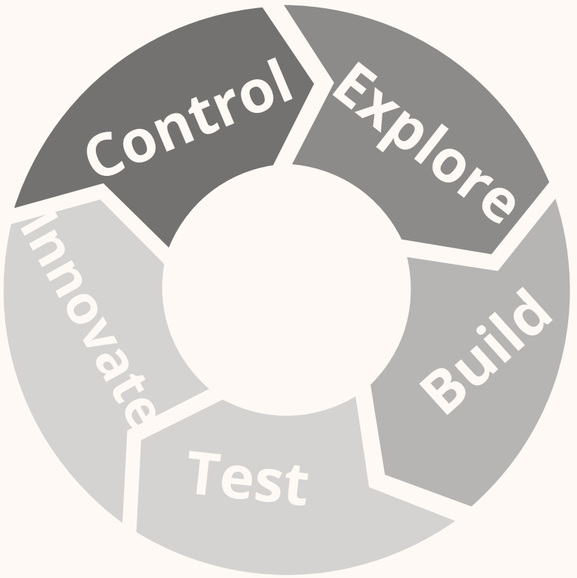
Need more 'No Show' data to predict this correctly.

Deployment

Application for automatic prediction of the customer behaviour.

Train employees.

If predicted to cancel make an offer to retain this customer.



THANK YOU!

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