

## **PROJECT DEVELOPMENT PHASE**

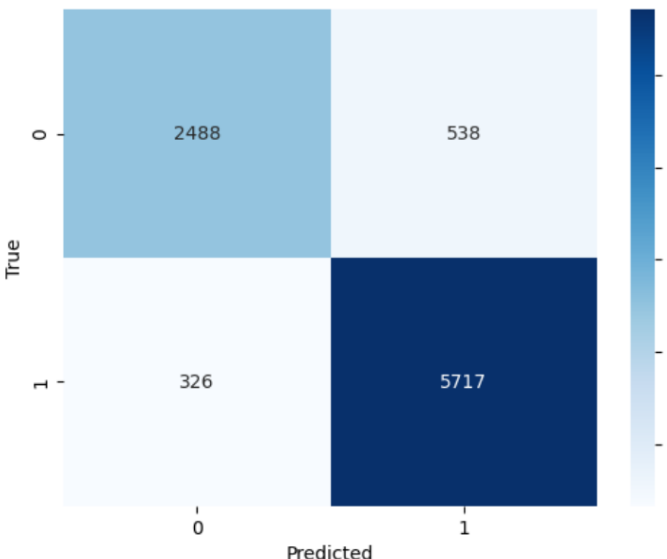
**Team ID:** Team-592499

**Title:** Machine Learning model for Occupancy rates  
and demand in the hospitality industry

### **Team members:**

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S.No	Parameter	Values	Screenshot									
1.	Model Summary	MAE – 14.3 MSE – 876.6 RMSE – 29.6 R2 SCORE – 0.51	<div>Regression Model Metrics: MAE: 14.204305835470084 MSE: 876.6451983133859 RMSE: 29.608194783089797 R2 Score: 0.5161133912191238</div> <div>Confusion Matrix</div>  <table><tr><td></td><td>0</td><td>1</td></tr><tr><td>0</td><td>2488</td><td>538</td></tr><tr><td>1</td><td>326</td><td>5717</td></tr></table> <p>True</p> <p>Predicted</p>		0	1	0	2488	538	1	326	5717
	0	1										
0	2488	538										
1	326	5717										

2.	Accuracy	Accuracy – 0.90	<pre> Accuracy: 0.9047304002646378 Classification Report:               precision    recall  f1-score   support     Canceled         0.88      0.82      0.85      3026   Not_Canceled      0.91      0.95      0.93      6043     accuracy          0.90          0.90          0.90      9069   macro avg          0.90          0.88          0.89      9069  weighted avg          0.90          0.90          0.90      9069 </pre>
3.	Confidence Score (Only Yolo Projects)	Class Detected - NA Confidence Score - NA	Not Applicable

## Regression Model Metrics:

MAE: 14.204305835470084

MSE: 876.6451983133859

RMSE: 29.608194783089797

R2 Score: 0.5161133912191238

From the colab the dataset of the Hotel Reservations we finally got the MAE, MSE, RMSE and the R2 score nearly equal accuracy and the accuracy of the given dataset to our model is given as 0.90

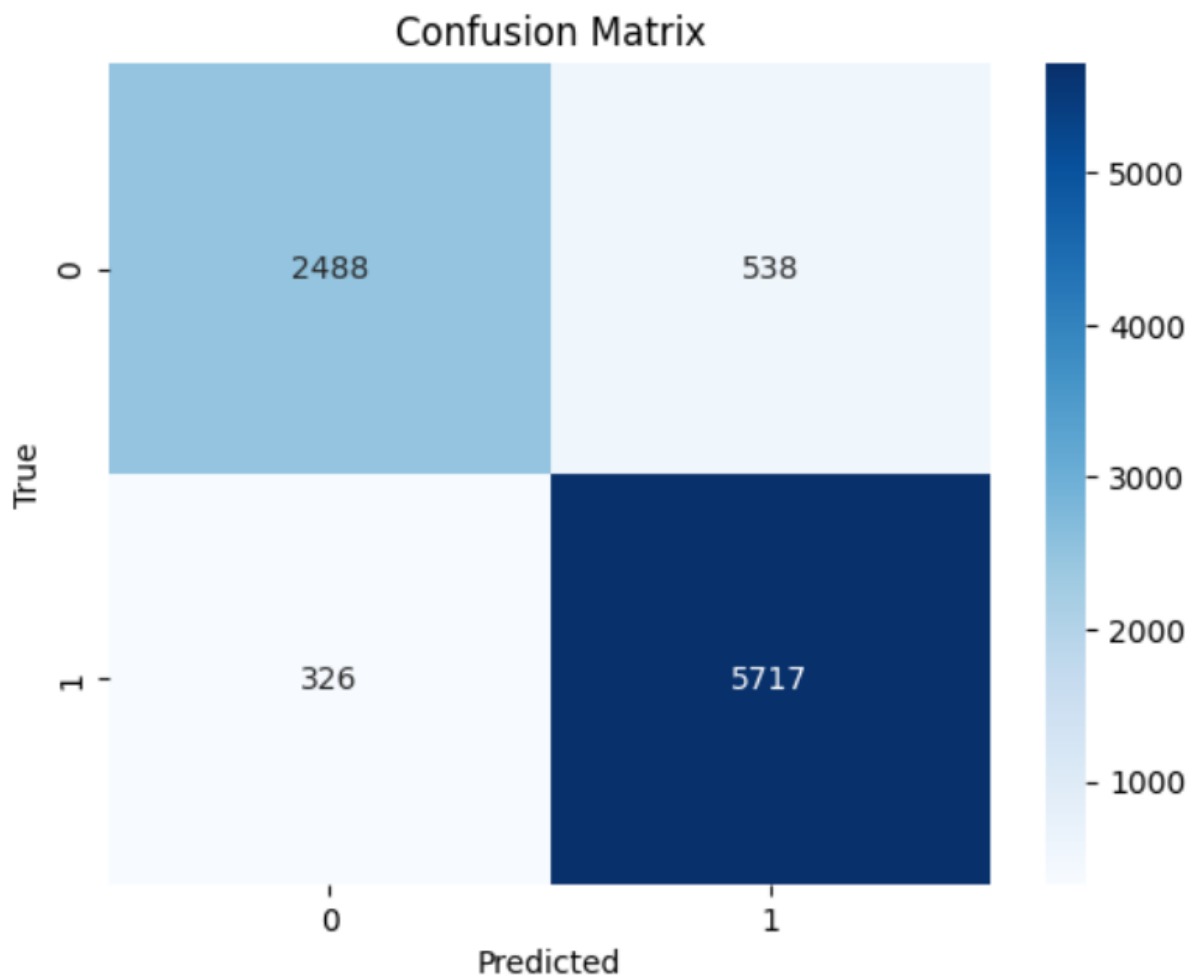
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Accuracy: 0.9047304002646378
Classification Report:
              precision    recall  f1-score   support

   Canceled         0.88      0.82      0.85      3026
  Not_Canceled      0.91      0.95      0.93      6043

   accuracy          0.90          0.90          0.90      9069
  macro avg          0.90          0.88          0.89      9069
 weighted avg          0.90          0.90          0.90      9069

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This is the confusion matrix which we got from the above dataset and the model which we done.

**\*\*\*THANK YOU\*\*\***

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