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Booking Completion Prediction Model Evaluation

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Model Evaluation & Key Insights

- **Objective:** Predict booking completion using a Random Forest Classifier.
- **Accuracy:** 84.95%
- **Class 0 (Completed Bookings):**
 - Precision: 0.86, Recall: 0.99, F1-Score: 0.92
- **Class 1 (Incomplete Bookings):**
 - Precision: 0.44, Recall: 0.06, F1-Score: 0.11
- **Key Insights:**
 - Strong performance on Class 0 (completed bookings) due to class imbalance.
 - Poor performance for Class 1 (incomplete bookings), highlighting the need for improvement.

Recommendations:

- Address class imbalance (e.g., SMOTE or class weighting).
- Enhance Class 1 recall by tuning hyperparameters or exploring other models (e.g., Gradient Boosting).
- Implement cross-validation and feature engineering for further improvements.

