# Model Evaluation Report

### Information Extraction Evaluation

Vendor:

  Precision: 1.0000 | Recall: 1.0000 | F1: 1.0000 | Accuracy: 1.0000

Date:

  Precision: 1.0000 | Recall: 1.0000 | F1: 1.0000 | Accuracy: 1.0000

Invoice_no:

  Precision: 1.0000 | Recall: 1.0000 | F1: 1.0000 | Accuracy: 1.0000

Total:

  Precision: 1.0000 | Recall: 0.9000 | F1: 0.9474

### Anomaly Detection Evaluation

Normal Class:

  Precision: 1.0000 | Recall: 1.0000 | F1: 1.0000 | Support: 81

Anomaly Class:

  Precision: 1.0000 | Recall: 1.0000 | F1: 1.0000 | Support: 9

Overall Accuracy: 1.0000

Macro Avg: Precision 1.0000 | Recall 1.0000 | F1 1.0000

Weighted Avg: Precision 1.0000 | Recall 1.0000 | F1 1.0000

AUC-ROC Score: 1.0000

### Conclusion

Isolation Forest was first used but did not provide satisfactory accuracy.

Random Forest was then applied, achieving perfect evaluation scores across Precision, Recall, F1, and AUC-ROC.

This makes Random Forest the best choice for anomaly detection in this project.