**Key Metrics and Their Importance:**

1. **Accuracy:** Accuracy=TP+TNTotal=1015+2004532059≈0.657Accuracy = \frac{TP + TN}{Total} = \frac{1015 + 20045}{32059} \approx 0.657Accuracy=TotalTP+TN​=320591015+20045​≈0.657 **(Accuracy ≈ 65.7%)**
   * **Interpretation:** Accuracy is moderate, but since the dataset appears to be highly imbalanced (much higher count of class 0 than class 1), accuracy alone is not a reliable metric here.
2. **Precision (Positive Predictive Value):** Precision=TPTP+FP=10151015+2420≈0.295Precision = \frac{TP}{TP + FP} = \frac{1015}{1015 + 2420} \approx 0.295Precision=TP+FPTP​=1015+24201015​≈0.295 **(Precision ≈ 29.5%)**
   * **Interpretation:** Only about 29.5% of the instances predicted as class 1 are actually correct. This low precision indicates that the model often misclassifies class 0 instances as class 1, resulting in many false alarms.
3. **Recall (Sensitivity/True Positive Rate):** Recall=TPTP+FN=10151015+8579≈0.106Recall = \frac{TP}{TP + FN} = \frac{1015}{1015 + 8579} \approx 0.106Recall=TP+FNTP​=1015+85791015​≈0.106 **(Recall ≈ 10.6%)**
   * **Interpretation:** The model captures only 10.6% of the actual class 1 instances. This extremely low recall is problematic, especially if class 1 is the minority class and represents critical instances (e.g., fraud detection, disease detection, etc.).
4. **F1-Score (Harmonic Mean of Precision and Recall):** F1=2×Precision×RecallPrecision+Recall=2×0.295×0.1060.295+0.106≈0.153F1 = 2 \times \frac{Precision \times Recall}{Precision + Recall} = 2 \times \frac{0.295 \times 0.106}{0.295 + 0.106} \approx 0.153F1=2×Precision+RecallPrecision×Recall​=2×0.295+0.1060.295×0.106​≈0.153 **(F1-Score ≈ 15.3%)**
   * **Interpretation:** F1-Score is quite low, reflecting the trade-off between precision and recall. This low F1-score indicates that the model is not performing well for the minority class.
5. **Specificity (True Negative Rate):** Specificity=TNTN+FP=2004520045+2420≈0.892Specificity = \frac{TN}{TN + FP} = \frac{20045}{20045 + 2420} \approx 0.892Specificity=TN+FPTN​=20045+242020045​≈0.892 **(Specificity ≈ 89.2%)**