1. **Risk Mitigation: Minimizing the Misclassification of Poor Credit Scores**

Goal: Reduce the risk of classifying **"Poor" credit scores as "Standard" or "Good"** to avoid approving risky individuals.

Key Metric to Focus On:

- **Recall for the "Poor" class** → Ensures that most truly poor credit scores are identified correctly.
- **False Negative Rate (FNR) for "Poor"** → Measures how often the model incorrectly classifies "Poor" individuals as "Standard" or "Good" (should be minimized).
    - FNR=1−Recall

2. **Customer Acquisition: Focused on Good and Standard Credit Scores**

Goal: Maximize marketing efforts by accurately identifying "Good" and "Standard" credit scores for customer acquisition.

Key Metric to Focus On:

- **Precision for Good and Standard Classes** → Ensures that most individuals classified as "Good" or "Standard" are truly in those categories, minimizing wasted marketing efforts.
- **False Positive Rate (FPR)** → Measures how often the model incorrectly classifies individuals who are actually **Poor** as **Good** or **Standard**. It should be minimized to avoid wasting marketing efforts on individuals who are not truly "Good" or "Standard".
    - 1−Specificity

3. **(BONUS) Fairness in Credit Score Classification: Ensuring Equal Recall Across Demographic Groups**

Goal: Ensure that individuals from different demographic groups (e.g., gender, age, income) receive equal treatment in terms of credit score classification, particularly for the "Poor" class. This will help mitigate bias and ensure fairness in the model's performance.

Key Metrics to Focus On:

- **Recall for "Poor" Credit Scores Across Demographic Groups** → Ensures that the model identifies "Poor" credit scores equally well across different groups (e.g., gender, age, income).
- **Disparity in Recall** → Measures the difference in recall between different demographic groups. A large disparity may indicate potential bias in the model that needs to be addressed.

- **False Negative Rate (FNR) Across Groups** → Measures how often individuals in the "Poor" class are incorrectly classified as "Standard" or "Good" within each demographic group. It should be minimized to ensure fairness across all groups.
    - 1−Recall