Classification Report Explanation

Class-wise Metrics (For 0 and 1 separately)

1. Precision: Out of all predicted positives, how many were actually correct? (Higher is better).

2. Recall: Out of all actual positives, how many did the model correctly identify?

3. F1-score: The balance between Precision & Recall (useful when data is imbalanced).

4. Support: The number of actual occurrences of each class in the dataset.

Example for class 0:

• Precision (0.94) → When the model predicted 0, it was correct 94% of the time.

• Recall (0.92) → Out of all actual 0s, the model correctly found 92%.

• F1-score (0.93) → A combined measure of Precision & Recall.

• Support (79) → There were 79 actual instances of class 0 in the dataset.

Example for class 1:

• Precision (0.86) → When the model predicted 1, it was correct 86% of the time.

• Recall (0.88) → Out of all actual 1s, the model correctly found 88%.

• F1-score (0.87) → A combined measure of Precision & Recall.

• Support (41) → There were 41 actual instances of class 1.

Overall Metrics (For the entire model)

• Accuracy (91%): Overall, how many predictions were correct.

• Macro Avg: The average of precision, recall, and F1-score for both classes equally.

• Weighted Avg: Similar to Macro Avg, but gives more importance to larger classes (since class 0 has more cases than class 1).

Final Summary:

✔ The model is 91% accurate.

✔ It performs slightly better on class 0 than class 1.

✔ The scores are **fairly balanced**, meaning the model does well on both classes.