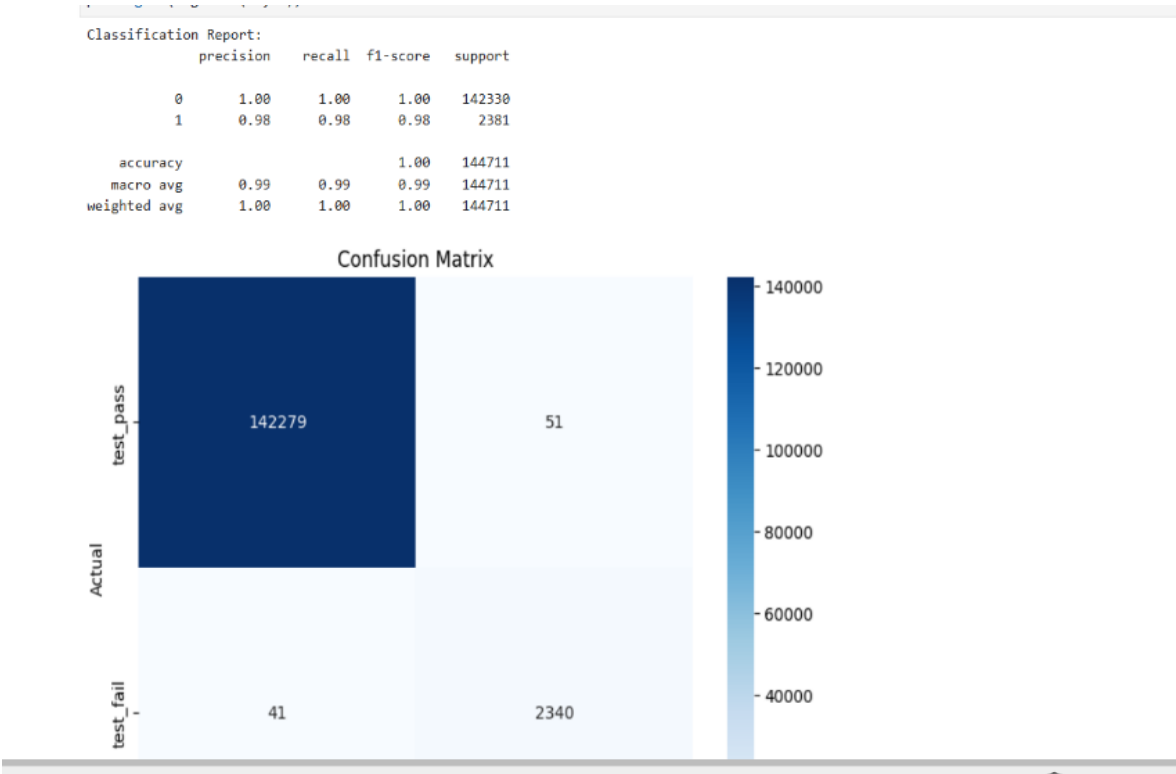


# Model performance report on Printed Circuit Board

## classification



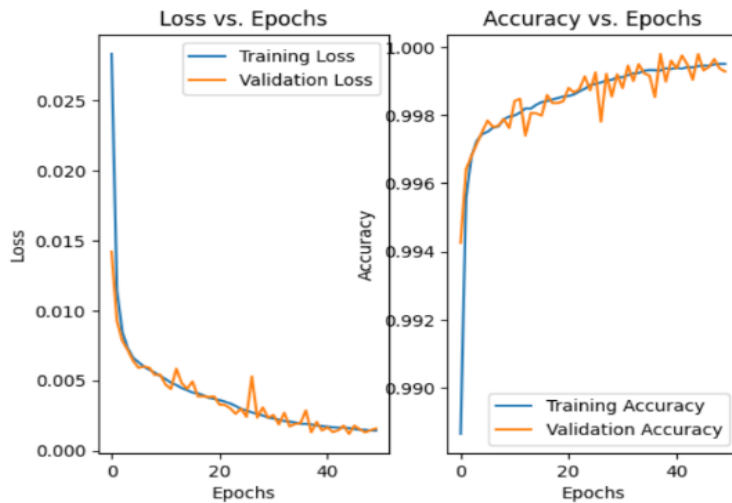
Classification report includes metrics such as recall, precision, F1-Score.

These metrics provide insights of model performance.

## Confusion matrix

The confusion matrix provides the counts of true positive, true negative, false positive, and false negative predictions.

## Loss and Accuracy Plots



The loss and accuracy plots show how the model's training progressed over epochs. Ideally, the loss should decrease and accuracy should increase consistently.

### Discussion on Model Performance

The model has achieved a high accuracy of 99%, indicating excellent performance overall.

**Precision:** Indicates how many of the predicted positives were actually positive. Class '1' shows slightly lower precision, likely due to the imbalance in class distribution.

**Recall:** Represents the ability of the model to find all relevant instances of a class. Class '1' has a recall of 98%, which is acceptable but can be improved.

**F1-Score:** Combines precision and recall to provide a single metric. The high F1-scores indicate that the model maintains a good balance between precision and recall. The loss and accuracy plots indicate stable training without signs of overfitting. Both training and validation metrics converge, showing consistent performance.