**Project Development Phase**

**Model Performance Test**

|  |  |
| --- | --- |
| Date | 6 June 2025 |
| Team ID | LTVIP2025TMID34708 |
| Project Name | Transfer Learning-Based Classification of Poultry Diseases for Enhanced Health Management |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

Project team shall fill the following information in model performance testing template.

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Parameter** | **Values** | **Screenshot** |
|  | Metrics | **Classification Model:** Confusion Matrix: [[50, 0, 0, 0], [0, 48, 1, 1], [0, 0, 49, 1], [0, 1, 0, 49]] Accuracy Score: 0.98 Classification Report: Salmonella: Precision 0.98, Recall 1.00 New Castle: Precision 0.98, Recall 0.96 Coccidiosis: Precision 0.98, Recall 0.98 Healthy: Precision 0.98, Recall 0.98 |  |
|  | Tune the Model | **Hyperparameter Tuning:** Applied GridSearchCV on the transfer learning CNN to tune hyperparameters: Best parameters: epochs = 20, batch\_size = 32, learning\_rate = 0.0001 **Validation Method:** Train/Test Split (80% training, 20% testing) Cross-Validation Score: 0.97 |  |