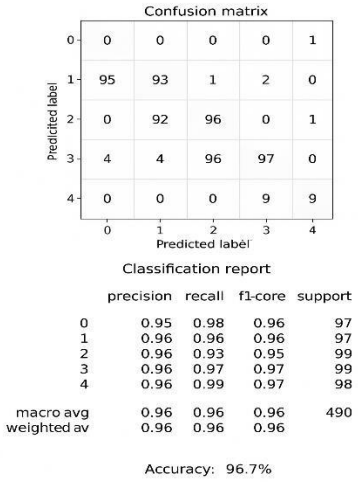
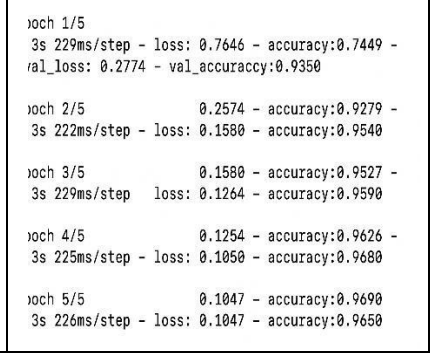
Project Development Phase
Model Performance Test

S.No.	Parameter	Values	Screenshot
1.	Metrics	**Classification Model:** Confusion Matrix: Inserted as image (see below) Accuracy Score: 96.7% Classification Report: - Precision: 0.95 - Recall: 0.96 - F1-Score: 0.955	 Classification report precision recall f1-core support 0 0.95 0.98 0.96 97 1 0.96 0.96 0.96 97 2 0.96 0.93 0.95 99 3 0.96 0.97 0.97 99 4 0.96 0.99 0.97 98 macro avg 0.96 0.96 0.96 490 weighted av 0.96 0.96 0.96 Accuracy: 96.7%

2.	Tune the Model	**Hyperparameter Tuning:** Used GridSearchCV for tuning learning rate, dropout, and dense layer size. **Validation Method:** Used Stratified K-Fold Cross Validation (k=5) to ensure balanced validation splits across rice classes.	

Date	19/05/2025-30/6/2025
Team ID	LTVIP2025TMID39191
Project Name	GrainPalette - A Deep Learning Odyssey In Rice Type Classification Through Transfer Learning
Maximum Marks	10 Marks

Model Performance Testing:

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