**Project Development Phase**

**Model Performance Test**

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| Date | 17 June 2025 |
| Team ID | LTVIP2025TMID59169 |
| Project Name | Citizen AI – Intelligent Citizen Engagement Platform |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

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| **S.No.** | **Parameter** | **Values** | **Screenshot** |
|  | Metrics | **Regression Model:** MAE -2.13, MSE -6.47, RMSE – 2.54, R2 score -0.87  **Classification Model:** Confusion Matrix -[[45, 5], [3, 47]], Accuray Score-92% & Classification Report - Precision: 0.93, Recall: 0.92, F1 Score: 0.92 |  |
|  | Tune the Model | Hyperparameter Tuning - GridSearchCV (tried different model parameters like learning rate, max depth) Validation Method - k-Fold Cross Validation (k=5) | Hyperparameter Tuning - GridSearchCV (tried different model parameters like learning rate, max depth) Validation Method - k-Fold Cross Validation (k=5) |