

Project Development Phase Model Performance Test

Date	17 november 2023
Team ID	Team-591790
Project Name	Project – T20-Totalitarian:Mastering score predictions
Maximum Marks	10 Marks

Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot
1.	Metrics	<p>Regression Model:</p> <p>1.Decesion tree regressor MAE – 4.137309897781102 MSE --137.6454437796061 RMSE -- 11.732239504016533</p> <p>2.Linear Regression- MAE- 13.231253750636858 MSE-311.2042685497275 RMSE-17.64098264127391</p> <p>3.Random Forest- MAE- 4.5038041368379815 MSE-59.72223492599992 RMSE-7.7280162348431904</p> <p>4.KNeighborsRegressor MAE- 7.7280162348431904 MSE-203.2539267015707 RMSE14.256715144154725</p>	<p>1.</p> <p>---- Decision Tree Regressor - Model Evaluation ---- Mean Absolute Error (MAE): 4.137309897781102 Mean Squared Error (MSE): 137.6454437796061 Root Mean Squared Error (RMSE): 11.732239504016533</p> <p>---- Linear Regression - Model Evaluation ---- Mean Absolute Error (MAE): 13.231253750636858 Mean Squared Error (MSE): 311.2042685497275 Root Mean Squared Error (RMSE): 17.64098264127391</p> <p>2.</p> <p>---- Random Forest Regression - Model Evaluation ---- Mean Absolute Error (MAE): 4.5038041368379815 Mean Squared Error (MSE): 59.72223492599992 Root Mean Squared Error (RMSE): 7.7280162348431904</p> <p>3.</p> <p>---- KNR - Model Evaluation ---- Mean Absolute Error (MAE): 9.900349040139616 Mean Squared Error (MSE): 203.2539267015707 Root Mean Squared Error (RMSE): 14.256715144154725</p> <p>4.</p>

2.	Tune the Model	<p>Hyperparameter Tuning –</p> <p>MAE-14.763365662866732 MSE-383.20455178342854</p> <p>RMSE-19.57561114712459</p> <p>Validation Method – SVM SUPPORT VECTOR MACHINE</p>	<p>---- Support Vector Regression - Model Evaluation ----</p> <p>Mean Absolute Error (MAE): 14.763365662866732</p> <p>Mean Squared Error (MSE): 383.20455178342854</p> <p>Root Mean Squared Error (RMSE): 19.57561114712459</p> <p>1.</p>