

Project Development Phase Model Performance Test

Date	19 November 2022
Team ID	PNT2022TMID09651
Project Name	Exploratory Analysis of Rainfall Prediction
Maximum Marks	10 Marks

Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot
1.	Metrics	<p>Regression Model: Random Forest classifier</p> <p>MAE -56.693305772295616, MSE -4707.377549592384, RMSE -62.032466303187896,</p>	<pre> In [101]: acc = [] from sklearn.metrics import accuracy_score for i in models: print(model_name(i)) acc.append(accuracy_score(y_test, pr)) In [102]: acc[0] ["Accuracy"]*acc[1]*100],acc[1] ["Accuracy"]*acc[2]*100],acc[2] ["Accuracy"]*acc[3]*100],acc[3] ["Accuracy"]*acc[4]*100],acc[4] ["Accuracy"]*acc[5]*100]) Out[102]: XGBoost Random_Forest Logistic_Regression K-Nearest_neighbors Decision_Tree Accuracy: 0.671035 0.529905 0.177056 0.028206 0.163316 In [103]: max_acc=max(acc) model_name=model_name[acc.index(max_acc)] print(model_name,"has the maximum testing accuracy") print("max accuracy = "+str(max_acc)) Random_Forest has the maximum testing accuracy Max accuracy: 0.529905(52.9905%) In [104]: print(model_name[max_acc]) </pre>

Accuracy Score-

Linear regression: Testing Accuracy: 78.699999999999996

Training accuracy: 78.01

&

Random regression: Testing Accuracy:

85.12

Training accuracy: 99.99

Hence, we tested with Logistic regression and Random Forest Classification wherein the accuracy of Random Forest classification is 99% compared with Logistic Regression.