

Project Development Phase

Model Performance Test

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| Date | 18 November 2022 |
| Team ID | PNT2022TMID21290 |
| Project Name | Early Detection of Chronic Kidney Disease using Machine Learning |
| 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 | Regression Model: MAE , MSE , RMSE , R2 score | <p>Since our's is a regression model we have used R2 score metrics.</p> <pre> #test the model In [40]: y_pred=lgr.predict(x_test) y_pred=lgr.predict([[120,90,1,0,0,0,0,1]]) print(y_pred) #10.966 In [41]: print('MAE: ',mae(y_test,y_pred)) print('MSE: ',mse(y_test,y_pred)) print('RMSE: ',rmse(y_test,y_pred)) print('R2: ',r2_score(y_test,y_pred)) /usr/local/lib/python3.7/dist-packages/sklearn/base.py:461: UserWarning: X does not have valid feature names, but LogisticRegression uses them when returning names "X does not have valid feature names, but" Out[40]: Counter({0: 40, 1: 82}) In [41]: accuracy_score(y_test,y_pred) Out[41]: 0.825 </pre> |
| 2. | Tune the Model | Hyperparameter Tuning | <p>Hyperparameters in Machine learning are those parameters that are explicitly defined by the user to control the learning process. One such important parameter used for hyper parameter tuning is n_estimators. In our model also we have used n_estimators for hyperparameter tuning.</p> <pre> In [42]: conf_mat=confusion_matrix(y_test,y_pred) conf_mat Out[42]: array([[48, 6], [0, 26]]) In [43]: pickle.dump(lgr,open('CKD.pkl','wb')) </pre> |