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MORRIS-RAINE REAL ESTATE CO.

STUDENT PERFORMANCE DETECTION

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PRESENTED BY

Write name here

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PROBLEM STATEMENT

Briefly elaborate on what you want to discuss.

Scope of the study

we are seeking to detect the student performance in exams by using machine learning so we use two models which are random forest and linear regression we used the to detect the predicted and actual value of their performance

METHODOLOGY

- In our project, we used Python and its libraries like pandas, numpy, and sklearn. Python includes a large number of libraries and features that may be utilised in Machine Learning. Our project is centered on running multiple tests using various algorithms including MultinomialNB, Passive Aggressive Classifier, Sentiment Analysis, Losng Short Memory LSTM, logistic regression, and Decision Tree. We ran each model on the dataset and then measured its accuracy which is a measure of the overall correctness of the classifier, and it is calculated as the number of correct predictions divided by the total number of predictions made by the classifier

IMPLMENTATION

Random forest model

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```
from sklearn.ensemble import RandomForestRegressorfrom sklearn.datasets import
load_irisX, y = load_iris(return_X_y=True)X_train, X_val, y_train, y_val = train_test_split(X,
y, test_size=0.2, random_state=100)rf = RandomForestRegressor(n_estimators=500,
max_depth=6, random_state=100)rf.fit(X_train, y_train)
```

VALUE	PREDICTED
2	2.000
0	0.000
2	1.998
0	0.000
2	1.958

IMPLMENTATION

linear regrassion model

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```
from sklearn.linear_model import
LinearRegressionlin =
LinearRegression()lin.fit(X_train, y_train)
```

Mean absolute error = 0.14
Mean squared error = 0.04
Median absolute error = 0.09
Explain variance score = 0.96
R2 score = 0.95

VALUE	PREDICTED
2	1.898135
0	-0.003577
2	2.199457
0	-0.051907
2	1.578895