MACHINE FAILURE PREDICTION PROJECT

DATA SCIENCE JUNE BATCH

ABOUT PROJECT

* In this project we have a given dataset of various machine failures based on their sensor data.
* In this project the dataset is trained and tested and the output is predicted.
* Independent variables from the dataset- footfall, temp Mode, AQ, USS, CS, VOC, RP, IP, Temperature
* Dependent variable from the dataset- fail
* In this project Logistic Regression is used to predict machine failure.

WHY LOGISTIC REGRESSION

* Logistic regression gives binary classification and In this project either machine will fail or work properly
* Logistic regression is a type of supervised learning algorithm and here the independent and dependent variables are given which is a symbol to use supervised learning algorithm.

NECESSARY LIBRARIES USED

* PANDAS - To implement data frame and its some other functionality
* SEABORN-To plot the graph of machine failure prediction
* From sklearn.model\_selection imported train\_test\_split to split data into test and train set
* From sklearn.linear\_model imported Logistic Regression
* From sklearn.metrics imported accuracy, precision, f1 score,Confusion matrix.

RESULTS

* Accuracy of the project is 0.87.
* Precision of the project is 0.85
* Recall of the project is 0.89
* F1-score of the project is 0.87
* Confusion matrix of project is [[88 14] [10 77]]
* PLOT-

