PROJECT OBJECTIVES

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| PROJECT NAME | Machine learning based predictive analysis for air craft engine |
| TEAM ID | PNT2022TMID33268 |

ABSTRACT:

Big data and artificial intelligence/machine learning are transforming the global business environment. Data is now the most valuable asset for enterprises in every industry. Companies are using data-driven insights for competitive advantage. With that, the adoption of machine learning-based data analytics is rapidly taking hold across various industries, producing autonomous systems that support human decision-making. This work explored the application of machine learning to aircraft engine conceptual design. Supervised machine-learning algorithms for regression and classification were employed to study patterns in an existing, open-source database of production and research turbofan engines, and resulting in predictive analytics for use in predicting performance of new turbofan designs. Specifically, the author developed machine learning-based analytics to predict cruise thrust specific fuel consumption (TSFC) and core sizes of high-efficiency turbofan engines, using engine design parameters as the input.

Problems:

1.Regression

2.Classification

Data pre-processing:

1.Handling the null values and categorical values.

2.Required the data.

3.Identify the dependent and independent values.

4.Split the dataset into train and test sets.

Analysis the dataset through visualization:

1.Univariate analysis

2.Bivariate analysis

3.Multivariate analysis

Applying algorithm:

1.ML Algorithm

Build the web application:

1.using flask