AIML PROJECT TITLE: Design an algorithm to detect and classify fake news articles based on textual content.

Problem Statement: This Project comes up with the applications of NLP (Natural Language Processing) techniques for detecting the 'fake news', that is, misleading news stories that comes from the non-reputable sources. Only by building a model based on a count vectorizer (using word tallies) or a (Term Frequency Inverse Document Frequency) tfidf matrix

Algorithm Used: The detection and classification of fake news using textual content requires a combination of Natural Language Processing (NLP) techniques and Machine Learning (ML) algorithms. The process typically involves data preprocessing, feature extraction (such as TF-IDF or word embeddings), and the use of classification algorithms like Logistic Regression, Naive Bayes, or advanced models such as LSTMs or BERT

Datasets: The dataset contains two types of articles fake and real News. This dataset was collected from realworld sources; the truthful articles were obtained by crawling articles from Reuters.com (News website). As for the fake news articles, they were collected from different sources. The fake news articles were collected from unreliable websites that were flagged by Politifact (a fact-checking organization in the USA) and Wikipedia. The dataset contains different types of articles on different topics, however, the majority of articles focus on political and World news topics

Expected Output: To detect the fake news, which is a classic text classification problem with a straight forward proposition. It is needed to build a model that can differentiate between "Real" news and "Fake" news.

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