**Naan Mudhalvan  
“2019-FAKE NEWS DETECTION USING NLP”**

**College name: St.joseph college of engineering**

**Student name: KEERTHANA R**

**Team members: Harini , kavi priya, divya dharshini, Gomathi, Gayathri**

**Team Id: Proj\_227123\_Team\_1**

Project title:Fake news detection using nlp

PROJECTSTATEMENT

\* In this project, we aim to develop a machine learning model that can classify news articles as either "fake" or "real" using NLP techniques. Fake news has become a significant concern in the digital age, and this project addresses the need for automated tools to detect it.

Project Title:\*\* Fake News Detection usingNLP

\*\*Project Description:\*\*

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Project steps

1. \*\*Data Collection:\*\* Gather a dataset of news articles labeled as either fake or real. This dataset should be diverse and representative of different sources and topics.

2. \*\*Text Preprocessing:\*\* Clean and preprocess the text data. This may involve tasks such as tokenization, removing stop words, and stemming or lemmatization.

3. \*\*Feature Extraction:\*\* Convert the text data into numerical features that can be used by machine learning algorithms. Common techniques include TF-IDF (Term Frequency-Inverse Document Frequency) and word embeddings like Word2Vec or GloVe.

4. \*\*Model Selection:\*\* Choose an appropriate machine learning algorithm for classification. Common choices include Naive Bayes, Logistic Regression, and more advanced models like Recurrent Neural Networks (RNNs) or Transformer-based models like BERT.

5. \*\*Model Training:\*\* Split the dataset into training and testing sets and train the selected model on the training data.

6. \*\*Model Evaluation:\*\* Evaluate the model's performance using metrics such as accuracy, precision, recall, and F1-score. Cross-validation can help ensure robustness.

7. \*\*Fine-Tuning:\*\* Depending on the model's performance, you may need to fine-tune hyperparameters or experiment with different algorithms.

8. \*\*Deployment:\*\* If the model performs well, you can deploy it as an application or integrate it into a news aggregator platform to flag potentially fake news articles.

9. \*\*Continuous Monitoring:\*\* Regularly update the model with new data to adapt to evolving news patterns and fake news tactics.