Sentiment Analysis with NLP - Project README

Project Overview

This project performs Sentiment Analysis on a dataset of customer reviews using Natural Language Processing (NLP) techniques. The primary objective is to classify text as having positive or negative sentiment using TF-IDF vectorization and Logistic Regression.

Project Structure

- Task2.ipynb: Jupyter notebook containing the complete analysis pipeline.
- IMDB Dataset.csv: The dataset used for training and testing.
- bb939b35-c1e8-47aa-a14b-54235779e662.png: Visual instructions related to the project.

Instructions

- Perform sentiment analysis using TF-IDF vectorization and logistic regression.
- Deliverable: A Jupyter notebook that showcases:
  - Preprocessing steps
  - Model training
  - Evaluation of sentiment prediction results

Tech Stack

- Python
- pandas
- scikit-learn
- matplotlib / seaborn
- Jupyter Notebook

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How to Run

1. Clone the repository:

   git clone https://github.com/yourusername/sentiment-analysis-nlp.git

2. Navigate into the project folder:

   cd sentiment-analysis-nlp

3. Install the dependencies:

   pip install -r requirements.txt

4. Launch the notebook:

   jupyter notebook Task2.ipynb

Requirements

- pandas
- scikit-learn
- matplotlib
- seaborn
- nltk