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**Prerequisites:**

* Python installed on your system (preferably Python 3.x)
* Pip package manager (usually comes with Python installation)

**Steps to Run the Code:**

1. **Install Required Libraries**:
   * Open a terminal or command prompt.
   * Run the following commands to install the required libraries:

matplotlib gensim

1. **Download NLTK Data**:
   * NLTK requires some additional data to be downloaded for tokenization and sentiment analysis. Run Python in your terminal and execute the following commands:
   * Ensure you have an Excel file named 'Assignment.xlsx' containing articles in a column named 'Article'. Place this file in the same directory as your Python script.
2. **Run the Code**:
   * Open your preferred text editor or IDE.
   * Copy and paste the provided code into a Python script file (e.g., **main.py**).
   * Save the file.
   * Navigate to the directory containing the Python script using the terminal or command prompt.
   * Run the script by executing the following command:
3. **View Output**:
   * The code will perform various tasks such as cleaning articles, sentiment analysis, topic modeling, aspect analysis, and visualization.
   * Mood ratings and topic visualization will be displayed using matplotlib.
   * Aspect sentiments will be printed to the console and saved to a CSV file named 'aspect\_analysis\_results.csv'.
   * Additional visualizations, such as mood ratings and aspect sentiments, will also be displayed.
4. **Check Output**:
   * Review the generated visualizations and printed outputs to analyze the sentiment, topics, and aspect sentiments of the provided articles.

By following these steps, the provided code can be executed to analyze articles, visualize mood ratings and topics, and perform aspect analysis.