1. **Data Loading:**
   * Load the airline user tweets and movie reviews dataset into your Python environment using pandas or any appropriate library.
2. **Extracting Features and Labels:**
   * Separate the text data (tweets and reviews) into features and labels.
   * Features: The text of the tweets and reviews.
   * Labels: The corresponding sentiment labels (positive, negative, neutral).
3. **Data Cleaning:**
   * Perform data cleaning tasks such as removing HTML tags, special characters, and any noise from the text data.
   * Normalize the text data by converting it to lowercase.
4. **Lemmatization and Simplified POS Tagging:**
   * Use NLTK's WordNetLemmatizer for lemmatization to reduce words to their base or dictionary form.
   * Apply simplified POS tagging to identify the part of speech of words in the text data.
5. **Removing Stop Words and Punctuation:**
   * Remove common stop words (e.g., 'and', 'the', 'is') and punctuation marks from the text data.
   * This step helps in focusing on the more meaningful words for sentiment analysis.
6. **Making Classifier with MultinomialNB:**
   * Create a Multinomial Naive Bayes classifier using scikit-learn.
   * Train the classifier using the pre-processed text data and their corresponding sentiment labels.
7. **Preparing Data for Testing and Prediction:**
   * Split the dataset into training and testing sets to evaluate the classifier's performance.
   * Convert the text data into numerical vectors using techniques such as TF-IDF (Term Frequency-Inverse Document Frequency).
8. **Data Visualizations:**
   * Use matplotlib or any suitable library to create visualizations.
   * Generate a pie chart to visualize the distribution of sentiment labels in the dataset.
   * Create a bar chart to show the frequency of different sentiment categories.