REQUIREMENTS

1. Twitter Developer Account: Create a developer account on the Twitter Developer platform to access the necessary APIs and obtain the required credentials.
2. API Access: Apply for access to the Twitter API to fetch tweets and perform sentiment analysis. You will need to specify the use case and provide some details about your application.
3. Programming Language: Choose a programming language that suits your preferences and expertise. Popular choices for sentiment analysis include Python, Java, or JavaScript.
4. Twitter API Libraries: Select a suitable library or SDK (Software Development Kit) that provides convenient methods and functions for interacting with the Twitter API. For example, in Python, you can use libraries like Tweepy or Twython.
5. Sentiment Analysis Library: Choose a sentiment analysis library or framework that allows you to analyze the sentiment of text data. Common options include NLTK (Natural Language Toolkit), TextBlob, or spaCy.
6. Data Pre-processing: Implement data pre-processing techniques to clean and pre-process the Twitter data. This may involve removing special characters, punctuation, stop words, and performing tokenization, stemming, or lemmatization.
7. Sentiment Analysis Model: Train or use a pre-trained sentiment analysis model to classify tweets into positive, negative, or neutral sentiment. You can train your own model using labeled data or leverage pre-existing models and fine-tune them on your specific task.
8. User Interface: Develop a user interface where users can input Twitter handles, hashtags, or search queries. The interface should display the sentiment analysis results in an easily understandable format, such as a graphical representation or sentiment scores.
9. Data Visualization: Implement visualizations to display sentiment analysis results, such as bar charts, pie charts, or word clouds, to provide users with an intuitive representation of the sentiment distribution.

10. Deployment: Deploy your application to a web server or a cloud platform like Heroku, AWS, or Azure, so that it can be accessed and used by users over the internet.