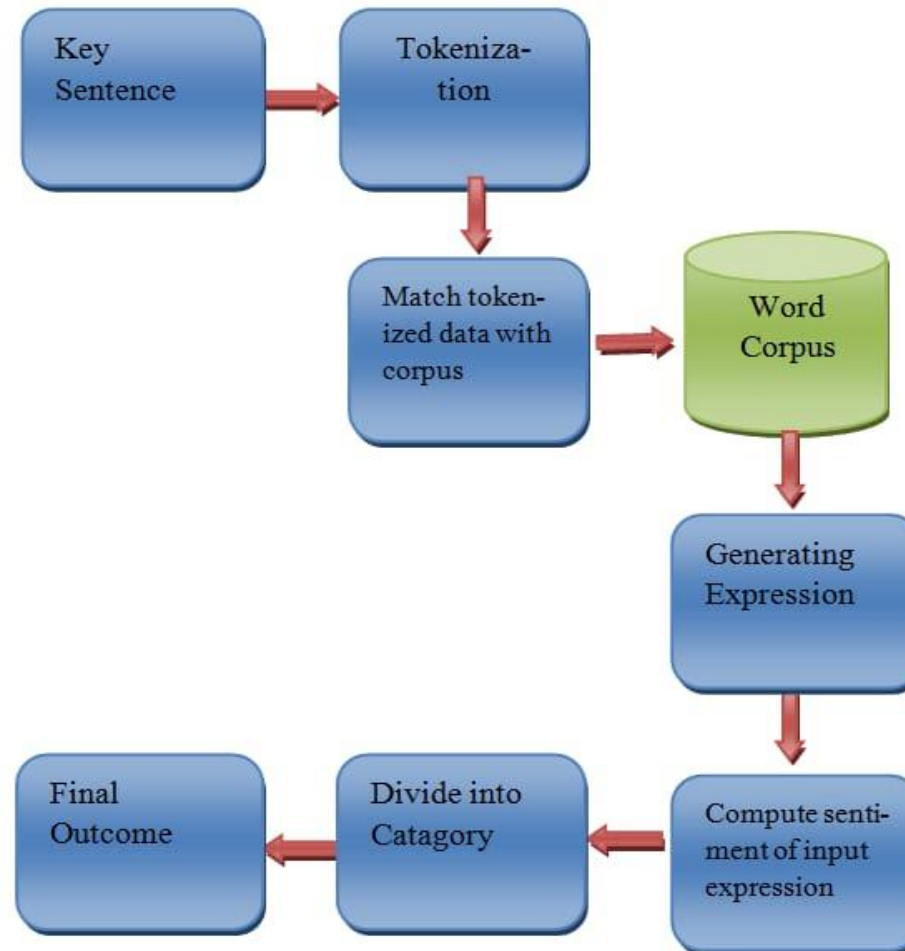# Real- Time Sentiment Analysis with Naïve Bayes : Emotion Detector

Flow Chart

Architecture Diagram

Coding

```
In [1]:  ▶  # Import Libraries
            import pandas as pd
            # Cleaning the Text by Neattext Pa
            import neattext.functions as nt
            # split the data
            from sklearn.model_selection import train_test_split
            # Use Machine Learning Model
            from sklearn.naive_bayes import MultinomialNB
            from sklearn.feature_extraction.text import CountVectorizer
            from sklearn.metrics import accuracy_score,classification_report,confusion_matrix
            # Build Pipeline
            from sklearn.pipeline import Pipeline

In [2]:  ▶  # Read Dataset
            df=pd.read_csv("emotion.csv")

In [3]:  ▶  df["Clean_text"]=df["Text"].apply(nt.remove_userhandles)  # To Remove Userhandles (#) Sign.
            df["Clean_text"]=df["Clean_text"].apply(nt.remove_stopwords) # To Remove Stopwords

In [4]:  ▶  # Features & Labels
            x = df['Clean_text']
            y = df['Emotion']

In [5]:  ▶  #  Split Data
            x_train,x_test,y_train,y_test = train_test_split(x,y,test_size=0.3,random_state=3)

In [6]:  ▶  # build the model
            model = Pipeline(steps=[('cv',CountVectorizer()),('lr',MultinomialNB())])
            # Train and Fit Data
            model.fit(x_train,y_train)
            Prediction = model.predict(x_test)

In [7]:  ▶  # Check Accuracy
            print('Accuracy score:',model.score(x_test,y_test))
```

Output

Accuracy score: 0.5721402567541675