In [1]:

```
import pandas as pd
msg=pd.read_csv('dataset.csv',names=['message','label'])
print('The dimensions of the dataset',msg.shape)
```

```
The dimensions of the dataset (45, 2)
```

In [2]:

```
msg['labelnum']=msg.label.map({'pos':1,'neg':0})
X=msg.message
y=msg.labelnum
print(X)
print(y)
```

```
0                I am capable of achieving great things
1                            I can't do anything right
2             Today is a new day full of possibilities
3                          I will never achieve my goals
4      I choose to focus on the good in every situation
5                 I am not worthy of love and happiness
6                   I am surrounded by love and support
7                        I will never be able to change
8           I am grateful for all that I have in my life
9                                    I am stuck in a rut
10            I am confident in my abilities and skills
11                     I am not as successful as others
12           I have the power to create positive change
13                                   I am always unlucky
14                        I deserve happiness and success
15           I don't have enough time to do what I want
16                        I am worthy of love and respect
17                             I always disappoint others
18     I embrace challenges as opportunities for growth
19                                I am not smart enough
20                  I am in control of my own happiness
21                       Nothing ever goes right for me
22    I radiate positivity and attract positivity in...
23       I will never be able to overcome my challenges
24        I am resilient and can overcome any obstacles
25                        I am always tired and exhausted
26          I am surrounded by abundance and prosperity
27                             I am constantly criticized
28          I am proud of myself and my accomplishments
29                                       I am a failure
30    I have the power to make a difference in the w...
31             I am not deserving of good things in life
32    I am surrounded by supportive and uplifting pe...
33            I am always overlooked and underestimated
34                 I am filled with joy and contentment
35                 I am constantly learning and growing
36                      I feel overwhelmed and stressed
37       I am capable of handling whatever comes my way
38    I am at peace with myself and the world around me
39                                  I am not good enough
40    I choose to let go of negativity and embrace p...
41                 I am worthy of success and happiness
42                               I always make mistakes
43        I attract positive opportunities into my life
44               I am loved and appreciated just as I am
Name: message, dtype: object
0     1
1     0
2     1
3     0
4     1
5     0
6     1
7     0
8     1
9     0
10    1
11    0
12    1
13    0
14    1
```

```
15    0
16    1
17    0
18    1
19    0
20    1
21    0
22    1
23    0
24    1
25    0
26    1
27    0
28    1
29    0
30    1
31    0
32    1
33    0
34    1
35    1
36    0
37    1
38    1
39    0
40    1
41    1
42    0
43    1
44    1
Name: labelnum, dtype: int64
```

In [3]:

```
from sklearn.model_selection import train_test_split
xtrain,xtest,ytrain,ytest=train_test_split(X,y)
print ('\n the total number of Training Data :',ytrain.shape)
print ('\n the total number of Test Data :',ytest.shape)
print('\n the test data is:',ytest)
```

```
 the total number of Training Data : (33,)

 the total number of Test Data : (12,)

 the test data is: 17    0
3     0
8     1
35    1
23    0
0     1
27    0
39    0
38    1
1     0
4     1
21    0
Name: labelnum, dtype: int64
```

In [4]:

```
from sklearn.feature_extraction.text import CountVectorizer
count_vect=CountVectorizer()
xtrain_dtm = count_vect.fit_transform(xtrain)
xtest_dtm=count_vect.transform(xtest)
print('\n The words or Tokens in the text documents \n')
print(count_vect.get_feature_names_out())
#print(xtrain_dtm)
#print(xtest_dtm)
```

```
 The words or Tokens in the text documents

['abilities' 'able' 'abundance' 'accomplishments' 'always' 'am' 'and'
 'any' 'appreciated' 'as' 'attract' 'be' 'by' 'can' 'capable' 'challenges'
 'change' 'choose' 'comes' 'confident' 'contentment' 'control' 'create'
 'day' 'deserve' 'deserving' 'difference' 'do' 'don' 'embrace' 'enough'
 'exhausted' 'failure' 'feel' 'filled' 'for' 'full' 'go' 'good' 'growth'
 'handling' 'happiness' 'have' 'in' 'into' 'is' 'joy' 'just' 'let' 'life'
 'love' 'loved' 'make' 'mistakes' 'my' 'myself' 'negativity' 'never' 'new'
 'not' 'obstacles' 'of' 'opportunities' 'others' 'overcome' 'overlooked'
 'overwhelmed' 'own' 'people' 'positive' 'positivity' 'possibilities'
 'power' 'prosperity' 'proud' 'radiate' 'resilient' 'respect' 'rut'
 'skills' 'smart' 'stressed' 'stuck' 'success' 'successful' 'support'
 'supportive' 'surrounded' 'the' 'things' 'time' 'tired' 'to' 'today'
 'underestimated' 'unlucky' 'uplifting' 'want' 'way' 'what' 'whatever'
 'will' 'with' 'world' 'worthy']
```

In [5]:

```
df=pd.DataFrame(xtrain_dtm.toarray(),columns=count_vect.get_feature_names_out())
```

In [6]:

```
from sklearn.naive_bayes import MultinomialNB
clf=MultinomialNB().fit(xtrain_dtm,ytrain)
print(clf)
predicted=clf.predict(xtest_dtm)
print(predicted)
from sklearn import metrics
print('\n Accuracy of the classifier is',metrics.accuracy_score(ytest,predicted))
print("\n Confusion matrix")
print(metrics.confusion_matrix(ytest,predicted))
print('\n The value of Precision', metrics.precision_score(ytest,predicted))
print('\n The value of Recall', metrics.recall_score(ytest,predicted))
```

```
MultinomialNB()
[0 0 1 1 0 1 1 0 1 0 1 1]

 Accuracy of the classifier is 0.8333333333333334

 Confusion matrix
[[5 2]
 [0 5]]

 The value of Precision 0.7142857142857143

 The value of Recall 1.0
```

In [ ]:

```
```