Import Libraries

```
import pandas as pd
import numpy as np
from sklearn.feature_extraction.text import CountVectorizer
from sklearn.model_selection import train_test_split
from sklearn.naive_bayes import MultinomialNB
```

Load and Read the Dataset

```
data = pd.read_csv("/content/fake_or_real_news.csv", engine='python', encoding='utf-8',error_bad_lines=False)
```

```
<ipython-input-5-994d77bf50e0>:1: FutureWarning: The error_bad_lines argument has been deprecated and will be removed in a future v

  data = pd.read_csv("/content/fake_or_real_news.csv", engine='python', encoding='utf-8',error_bad_lines=False)
Skipping line 3880: unexpected end of data
```

```
print(data.head())
```

```
      Unnamed: 0                                         title  \
   0        8476                       You Can Smell Hillary's Fear
   1       10294  Watch The Exact Moment Paul Ryan Committed Pol...
   2        3608          Kerry to go to Paris in gesture of sympathy
   3       10142  Bernie supporters on Twitter erupt in anger ag...
   4         875    The Battle of New York: Why This Primary Matters

                                                   text label
   0  Daniel Greenfield, a Shillman Journalism Fello...  FAKE
   1  Google Pinterest Digg Linkedin Reddit Stumbleu...  FAKE
   2            F. Kerry said Mon...  REAL
              November 9, 2016 T...  FAKE
   4  It's primary day in New York and front-runners...  REAL
```

Saving... ✕

```
x = np.array(data["title"])
y = np.array(data["label"])
```

```
print(x)
print(y)
```

```
   ['You Can Smell Hillary's Fear'
    'Watch The Exact Moment Paul Ryan Committed Political Suicide At A Trump Rally (VIDEO)'
    'Kerry to go to Paris in gesture of sympathy' ...
    'Donald Trump, Peacenik President?        : Information'
    'Merkel: Worried about Islamisation? Just Sing Christmas Carols'
    "Trump's abortion answer confirms GOP fears"]
   ['FAKE' 'FAKE' 'REAL' ... 'FAKE' 'FAKE' 'REAL']
```

```
cv = CountVectorizer()
x = cv.fit_transform(x)
```

Splitting the Dataset

```
xtrain, xtest, ytrain, ytest = train_test_split(x, y, test_size=0.2, random_state=42)
model = MultinomialNB()
model.fit(xtrain, ytrain)
print(model.score(xtest, ytest))
```

```
   0.8092783505154639
```

Data Preprocessing

```
news_headline = "Fact check: Trump and Clinton at the 'commander-in-chief' forum"
data = cv.transform([news_headline]).toarray()
print(model.predict(data))
```

```
   ['REAL']
```

```
news_headline = "Cow dung can cure Corona Virus"
data = cv.transform([news_headline]).toarray()
print(model.predict(data))
```

```
   ['FAKE']
```

[FAKE]

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