Aics1

```
pip install scikit-learn pandas

import pandas as pd
from sklearn.feature_extraction.text import CountVectorizer
from sklearn.naive_bayes import MultinomialNB
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score, classification_report

df = pd.read_csv('spam.csv')

df.describe()

df=df[["Category", "Message"]]

df["Category"]=df["Category"].map({"ham" : 0 , "spam" : 1})

vectorizer = CountVectorizer()
x=vectorizer.fit_transform(df["Message"])
y=df["Category"]

x_train, x_test, y_train, y_test = train_test_split(x, y, test_size=0.2, random_state=42)

model = MultinomialNB()
model.fit(x_train, y_train)

y_pred = model.predict(x_test)
print("Accuracy :", accuracy_score(y_test, y_pred))
print("Classification Report :\n", classification_report(y_test, y_pred))

def predict_spam(message):
    msg_vec = vectorizer.transform([message])
    prediction = model.predict(msg_vec)
    return "spam" if prediction[0] == 1 else "ham"

print(predict_spam(" win a car in lucky draw"))
print(predict_spam("offer "))
```