

```
In [2]: from sklearn.feature_extraction.text import TfidfVectorizer
        from sklearn.tree import DecisionTreeClassifier

        documents = [
            "Spam messages are annoying",
            "I won a lottery",
            "This is a normal message"
        ]
        labels = ["Spam", "Spam", "Not Spam"]

        vectorizer = TfidfVectorizer()
        X = vectorizer.fit_transform(documents)
        dt_classifier = DecisionTreeClassifier()
        dt_classifier.fit(X, labels)
        new_text = ["You have won a million dollars!"]
        new_text_tfidf = vectorizer.transform(new_text)
        predicted_category = dt_classifier.predict(new_text_tfidf)

        print("Predicted Category:", predicted_category[0])

Predicted Category: Spam
```

```
In [ ]:
```