

# bayes classification

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## 1 bayes classification

```
weather=['sunny','rainy','rainy','overcast','sunny','rainy','overcast']
temp=['cold','warm','warm','mild','cold','warm','mild']
play=['yes','no','no','yes','yes','no','yes']
```

```
from sklearn import preprocessing
le=preprocessing.LabelEncoder()
weather_encoded=le.fit_transform(weather)
print("Weather: ",weather_encoded)

type(weather_encoded)
temp_encoded=le.fit_transform(temp)
label=le.fit_transform(play)
print("Temp: ",temp_encoded)
print("Play: ",label)

features=tuple(zip(weather_encoded,temp_encoded))
print(features)

from sklearn.naive_bayes import GaussianNB

model=GaussianNB()
model.fit(features,label)
predicted=model.predict([[1,2]])
print("Predicted Value",predicted)
```