**Program:**

import pandas as pd

from sklearn.model\_selection import train\_test\_split

from sklearn.naive\_bayes import GaussianNB

from sklearn.metrics import accuracy\_score

# Load the dataset

data = pd.read\_csv('Datasets\enjoysport.csv')

# Convert categorical variables to numerical

data = pd.get\_dummies(data)

# Separate features and target variable

X = data.drop('PlayTennis', axis=1)

y = data['PlayTennis']

# Split dataset into training and testing sets

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.2, random\_state=42)

# Create and train the Naive Bayes classifier

classifier = GaussianNB()

classifier.fit(X\_train, y\_train)

# Make predictions on the test data

y\_pred = classifier.predict(X\_test)

# Compute accuracy

accuracy = accuracy\_score(y\_test, y\_pred)

print("Accuracy:", accuracy)

Dataset:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Outlook | Temperature | Humidity | Wind | Answer |
| sunny | hot | high | weak | no |
| sunny | hot | high | strong | no |
| overcast | hot | high | weak | yes |
| rain | mild | high | weak | yes |
| rain | cool | normal | weak | yes |
| rain | cool | normal | strong | no |
| overcast | cool | normal | strong | yes |
| sunny | mild | high | weak | no |
| sunny | cool | normal | weak | yes |
| rain | mild | normal | weak | yes |
| sunny | mild | normal | strong | yes |
| overcast | mild | high | strong | yes |
| overcast | hot | normal | weak | yes |
| rain | mild | high | strong | no |
| sunny | hot | high | strong | no |

Output: