

Ishan Gupta - Naive Bayes - 19BCE7467

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✓ [3] import numpy as np
0s import matplotlib.pyplot as plt
import pandas as pd
dataset = pd.read_csv('/content/diabetes.csv')
print(dataset)

      Pregnancies  Glucose  ... Age Outcome
0              6      148  ...  50         1
1              1       85  ...  31         0
2              8      183  ...  32         1
3              1       89  ...  21         0
4              0      137  ...  33         1
..          ...    ...  ...  ...    ...
763           10      101  ...   63         0
764              2      122  ...   27         0
765              5      121  ...   30         0
766              1      126  ...   47         1
767              1       93  ...   23         0

[768 rows x 9 columns]
```

```
✓ [4] X = dataset.iloc[:, :-1].values
0s y = dataset.iloc[:, -1].values
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✓ [5] # Splitting the dataset into the Training set and Test set
0s from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.25, random_state = 0)
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✓ [6] # Feature Scaling
0s from sklearn.preprocessing import StandardScaler
sc = StandardScaler()
X_train = sc.fit_transform(X_train)
X_test = sc.transform(X_test)
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```
✓ [7] # Training the Naive Bayes model on the Training set
0s from sklearn.naive_bayes import GaussianNB
classifier = GaussianNB()
classifier.fit(X_train, y_train)

GaussianNB(priors=None, var_smoothing=1e-09)
```

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✓ [8] # Making the Confusion Matrix
0s from sklearn.metrics import confusion_matrix, accuracy_score
y_pred = classifier.predict(X_test)
cm = confusion_matrix(y_test, y_pred)
print(cm)
accuracy_score(y_test, y_pred)

[[114  16]
 [ 29  33]]
0.765625
```