

```
import numpy as np
```

```
import pandas as pd
```

```
data = pd.read_csv('./diabetes.csv')
```

```
data.head()
```

```
#Check for null or missing values
```

```
data.isnull().sum()
```

```
#Replace zero values with mean values
```

```
for column in data.columns[1:-3]:
```

```
    data[column].replace(0, np.NaN, inplace = True)
```

```
    data[column].fillna(round(data[column].mean(skipna=True)), inplace = True)
```

```
data.head(10)
```

```
X = data.iloc[:, :8] #Features
```

```
Y = data.iloc[:, 8:] #Predictor
```

```
#Perform Splitting
```

```
from sklearn.model_selection import train_test_split
```

```
X_train, X_test, Y_train, Y_test = train_test_split(X, Y, test_size=0.2, random_state=0)
```

```
#KNN
```

```
from sklearn.neighbors import KNeighborsClassifier
```

```
knn = KNeighborsClassifier()
```

```
knn_fit = knn.fit(X_train, Y_train.values.ravel())
```

```
knn_pred = knn_fit.predict(X_test)
```

```
from sklearn.metrics import confusion_matrix, precision_score, recall_score, f1_score,  
accuracy_score
```

```
print("Confusion Matrix")
print(confusion_matrix(Y_test, knn_pred))
print("Accuracy Score:", accuracy_score(Y_test, knn_pred))
print("Recal Score:", recall_score(Y_test, knn_pred))
print("F1 Score:", f1_score(Y_test, knn_pred))
print("Precision Score:", precision_score(Y_test, knn_pred))
```