Elements of AIML-Lab

Experiment- 4

Q)Read these two CSV files using pandas.

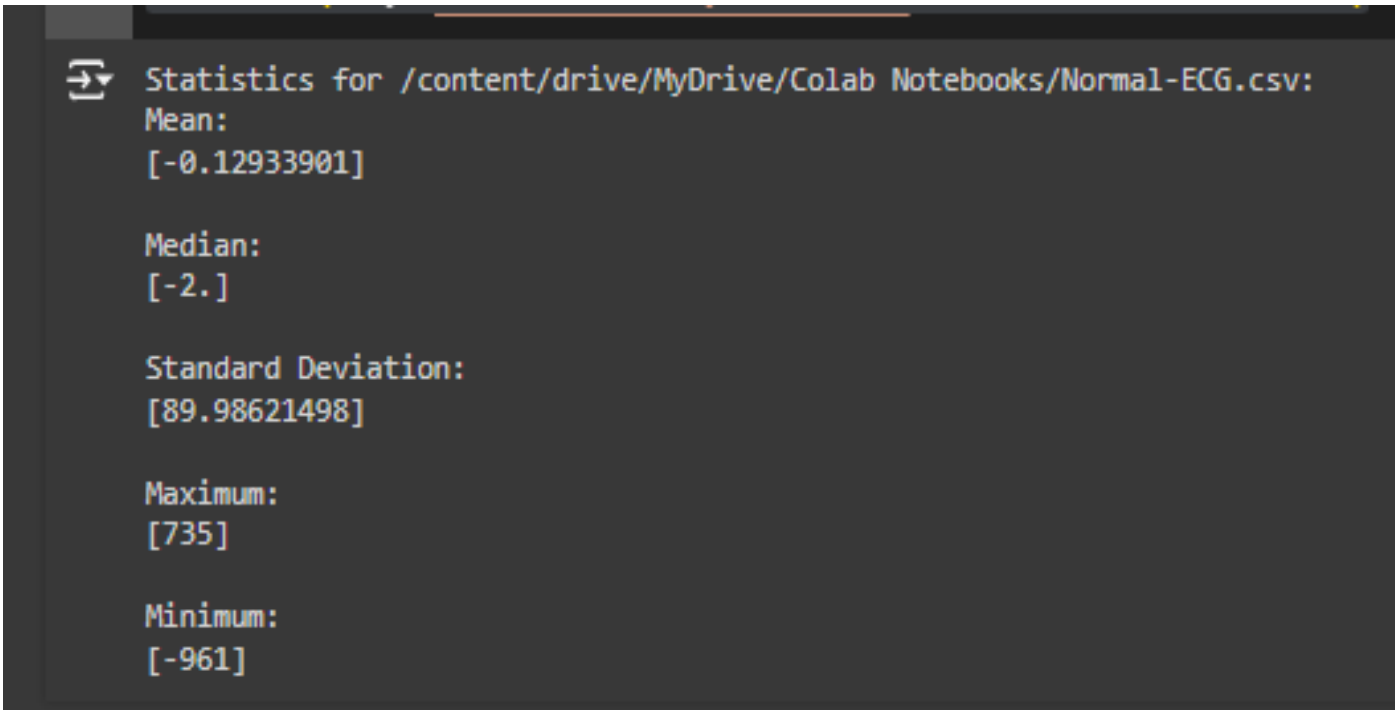
Evaluate five statistical features:

Mean, Max value, Min Value, Std, Median value

Code:-1

```
import pandas as pd
import numpy as np

# Load the data
df1 = pd.read_csv("/content/drive/MyDrive/Colab Notebooks/Dia-ECG.csv")
df2 = pd.read_csv("/content/drive/MyDrive/Colab Notebooks/Normal-ECG.cs

# Select only numeric columns
df1 = df1.select_dtypes(include=[np.number])
df2 = df2.select_dtypes(include=[np.number])

def statistics(df, file_name):
    print(f"Statistics for {file_name}:")
    print("Mean:")
    print(df.mean().values)
    print("\nMedian:")
    print(df.median().values)
    print("\nStandard Deviation:")
    print(df.std().values)
    print("\nMaximum:")
    print(df.max().values)
    print("\nMinimum:")
    print(df.min().values)

# Calculate statistics

statistics(df2, "/content/drive/MyDrive/Colab Notebooks/Normal-ECG.csv"
```

Ouput:-


Statistics for /content/drive/MyDrive/Colab Notebooks/Normal-ECG.csv:
Mean:
[-0.12933901]
Median:
[-2.]
Standard Deviation:
[89.98621498]
Maximum:
[735]
Minimum:
[-961]

Code-2

```python
import pandas as pd
df1 = pd.read_csv("/content/drive/MyDrive/Colab Notebooks/Dia-ECG.csv")
df2 = pd.read_csv("/content/drive/MyDrive/Colab Notebooks/Normal-ECG.csv")
df1 = df1.select_dtypes(include=[np.number])
df2 = df2.select_dtypes(include=[np.number])



def statistics(df, file_name):
    print(f"Statistics for {file_name}:")
    print("Mean:")
    print(df.mean().values)
    print("\nMedian:")
    print(df.median().values)
    print("\nStandard Deviation:")
    print(df.std().values)
    print("\nMaximum:")
    print(df.max().values)
    print("\nMinimum:")
    print(df.min().values)


statistics(df2, "Dia-ECG.csv")
```

Output:

```
Statistics for Dia-ECG.csv:
Mean:
[-0.12933901]

Median:
[-2.]

Standard Deviation:
[89.98621498]

Maximum:
[735]

Minimum:
[-961]
```

A	B	C	D	E	F
	Normal	Diabetic			
Mean	-0.129339	-38.2254			
Median	-2	-38			
Std	89.986215	66.430087			
Max	735	584			
Min	-961	-1741			

Normal-ECG.csv

Dia-ECG.csv