UNIVERSITY INSTITUTE of COMPUTING
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Experiment No. 3.2

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Branch: MCA - CCD
Section/Group: MCD-1/ Grp B
Semester: I
Date of Performance: 19th Dec 22
Subject Name: Python Programming Lab
Subject Code: 22CAP-647

1. **Aim/Overview of the practical:**
   Visualize dataset using plotly and create heatmap of the correlation between different columns (Heart disease dataset)

2. **Code for practical:**

A.

```
import pandas as pd
import plotly.express as px
df = pd.read_csv('heart.csv')
fig = px.line(df, x='age', y='thal', title='Age X Time')
fig.show()
```

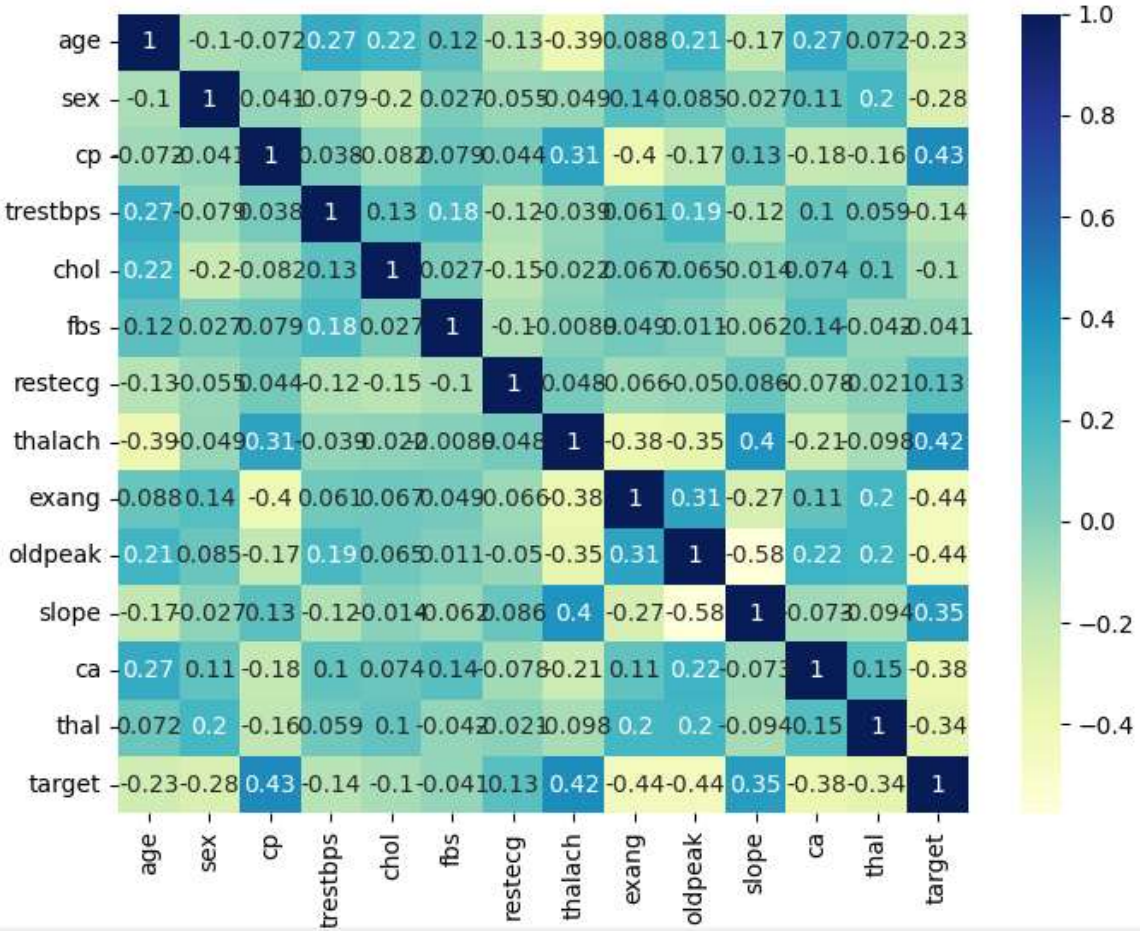
B.

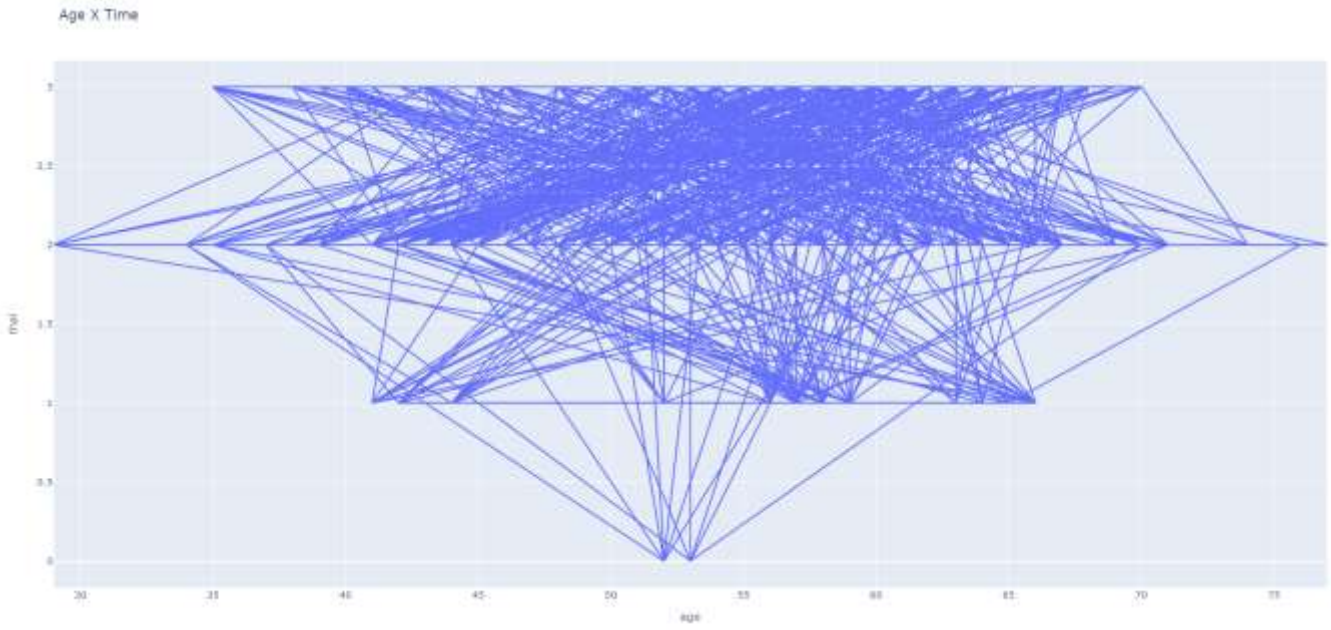
```
import matplotlib.pyplot as mp
import pandas as pd
import seaborn as sb

data = pd.read_csv("heart.csv")
print(data.corr()
dataplot = sb.heatmap(data.corr(), cmap="YlGnBu", annot=True)

mp.show()
```

3. **Output:**


age 1 -0.1 -0.07 0.27 0.22 0.12 -0.13 -0.39 0.088 0.21 -0.17 0.27 0.072 -0.23
sex -0.1 1 0.041 0.079 -0.2 0.027 0.055 0.049 0.14 0.085 0.027 0.11 0.2 -0.28
cp -0.07 0.041 1 0.038 0.082 0.079 0.044 0.31 -0.4 -0.17 0.13 -0.18 -0.16 0.43
trestbps 0.27 -0.079 0.038 1 0.13 0.18 -0.12 -0.039 0.061 0.19 -0.12 0.1 0.059 -0.14
chol 0.22 -0.2 -0.082 0.13 1 0.027 -0.15 -0.022 0.067 0.065 0.014 0.074 0.1 -0.1
fbs 0.12 0.027 0.079 0.18 0.027 1 -0.1 -0.0089 0.049 0.011 0.062 0.14 -0.042 0.041
restecg -0.13 0.055 0.044 -0.12 -0.15 -0.1 1 0.048 0.066 0.05 0.086 0.078 0.021 0.13
thalach -0.39 0.049 0.31 -0.039 0.022 0.0089 0.048 1 -0.38 -0.35 0.4 -0.21 0.098 0.42
exang 0.088 0.14 -0.4 0.061 0.067 0.049 0.066 0.38 1 0.31 -0.27 0.11 0.2 -0.44
oldpeak 0.21 0.085 -0.17 0.19 0.065 0.011 0.05 -0.35 0.31 1 -0.58 0.22 0.2 -0.44
slope 0.17 0.027 0.13 0.12 0.014 0.062 0.086 0.4 -0.27 0.58 1 0.073 0.094 0.35
ca 0.27 0.11 0.18 0.1 0.074 0.14 0.078 0.21 0.11 0.22 0.073 1 0.15 0.38
thal 0.072 0.2 0.16 0.059 0.1 0.042 0.021 0.098 0.2 0.2 0.094 0.15 1 0.34
target 0.23 0.28 0.43 0.14 0.1 0.041 0.13 0.42 0.44 0.44 0.35 0.38 0.34 1
age sex cp trestbps chol fbs restecg thalach exang oldpeak slope ca thal target
1.0 0.8 0.6 0.4 0.2 0.0 −0.2 −0.4


Age X Time
thal
age

********** THE END **********