Lab 15

Name :- Aryan Dilipbhai Langhanoja

Date :- 12-09-2023

Enrollment No :- 92200133030

**CO1: To write, test, and debug simple Python programs**

CO2: To implement Python programs with conditional, loops and functions

Task 1:- Using Numpy Library generate random values to be passed as input to the graph.
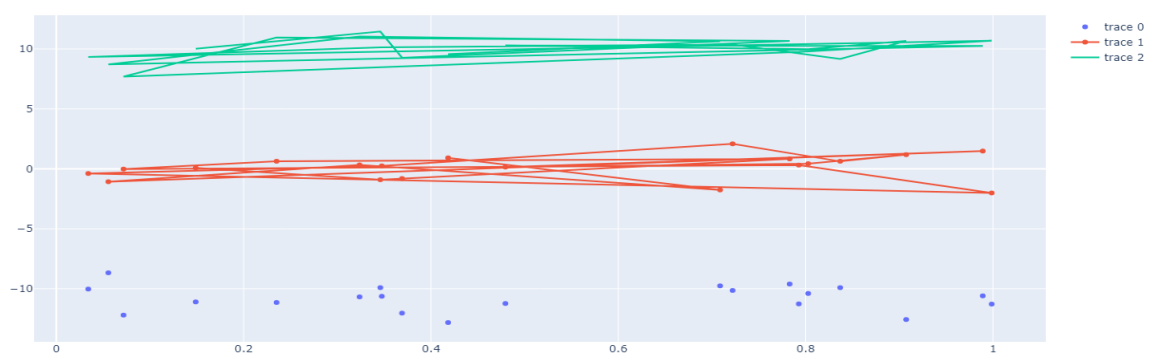
Python Code:

```
num = 100
x = np.random.random(num)
y = np.random.random(num)
follow = G.Scatter(
    x = x ,
    y = y ,
    mode = 'markers'
    )
output1 = [follow]
plt.offline.plot(output1,filename='Task-1.html',auto_open=True)
```

Output:
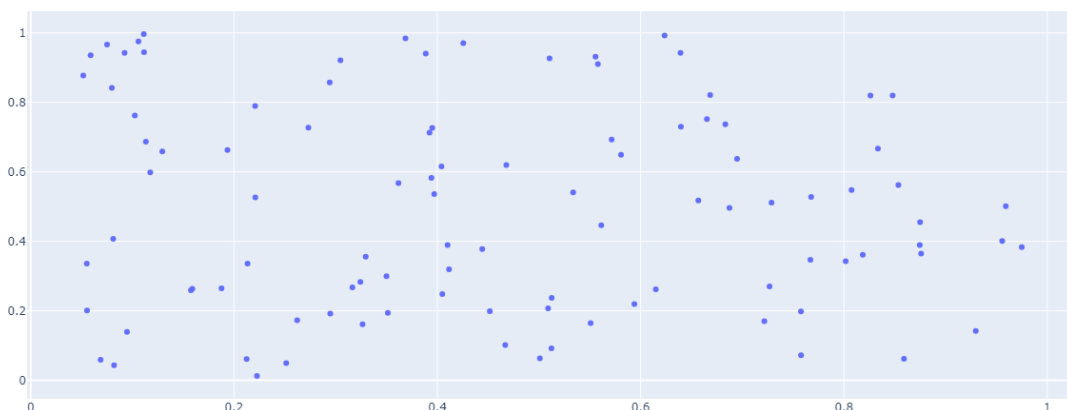
Task 2:- Represent Data Using Combination of line

Python Code:

N = 20

X = np.linspace(0,1,N)

y0 = np.random.randn(N) - 10

y1 = np.random.randn(N)

y2 = np.random.randn(N) + 10

plot0 = G.Scatter(

   x = x,

   y = y0,

   mode = 'markers'

)

plot1 = G.Scatter(

   x = x,

   y = y1 ,

   mode = 'lines + markers'

)

plot2 = G.Scatter(

   x = x ,

   y = y2 ,

   mode = 'lines'

)

output2 = [plot0,plot1,plot2]

plt.offline.plot(output2,filename='Task-2.html',auto_open=True)

Output:

Task 3:- Box Plot

Python Code:
a = np.random.rand(100) - 10
b = np.random.rand(100) + 10

output4 = G.Figure()
output4.add_trace(G.Box(y = a))
output4.add_trace(G.Box(y = b))

plt.offline.plot(output4,filename='Task-4.html',auto_open=True)

Output: