ASSIGNMENT03: y=mx+c and y=sinx and their pie-chart and barchart in python:

```
import matplotlib.pyplot as plt
import numpy as np

# Equation y = mx + c
m = 2
c = 3
x = np.linspace(-10, 10, 400)
y = m * x + c

# Equation y = sin(x)
x_sin = np.linspace(-10, 10, 400)
y_sin = np.sin(x_sin)

# Plotting the equations
plt.figure(figsize=(10, 5))

plt.subplot(1, 2, 1)
plt.plot(x, y, label=f"y = {m}x + {c}")
plt.plot(x_sin, y_sin, label="y = sin(x)")
plt.legend()
plt.title("Equations")
plt.grid(True)

# Pie chart
plt.subplot(1, 2, 2)
labels = ['y = mx + c', 'y = sin(x)']
sizes = [50, 50]
plt.pie(sizes, labels=labels, autopct='%1.1f%%')
plt.title("Pie Chart")

plt.tight_layout()
plt.show()
```

```
# Bar chart
x_bar = np.array([1, 2, 3, 4, 5])
y_bar = np.array([2, 4, 6, 8, 10])

plt.figure(figsize=(10, 5))
plt.bar(x_bar, y_bar)
plt.title("Bar Chart")
plt.xlabel("X")
plt.ylabel("Y")
plt.show()
```

Here is my pie-chart and barchart for these Equation