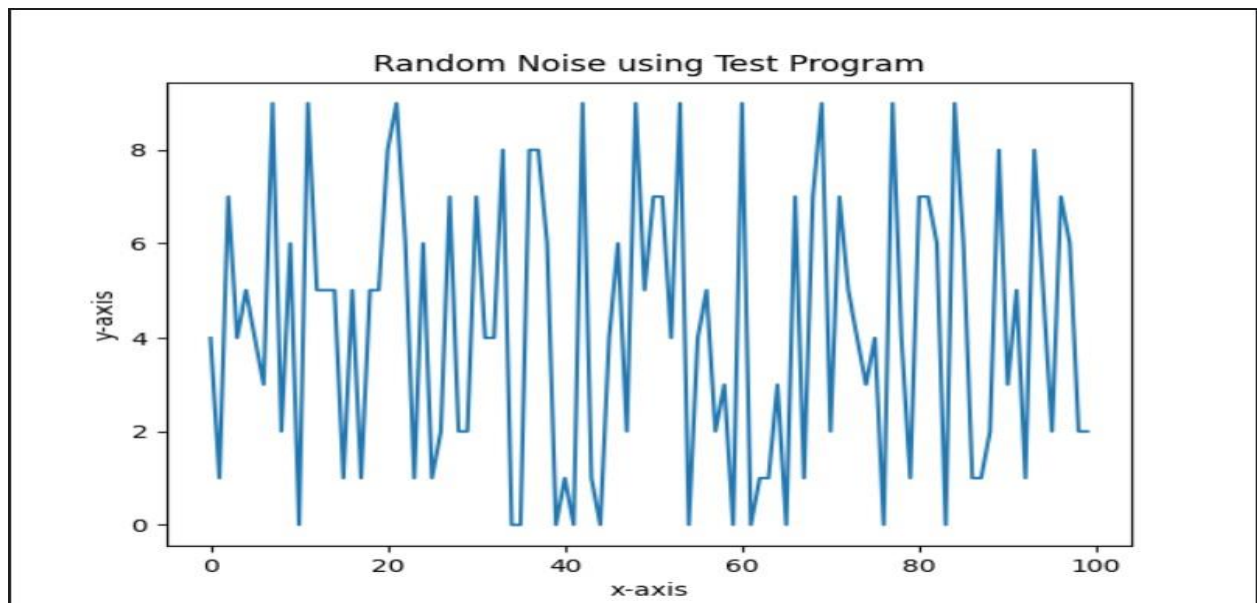# Lab Report

Pre-Lab task

Code:

```python
import numpy as np
import matplotlib.pyplot as plot

values = np.random.randint(10, size=(100))
plot.plot(values)

plot.title('Random Noise using Test Program')
plot.xlabel('x-axis')
plot.ylabel('y-axis')
plot.show()
```

Output:

In Lab Task 1

Code:

```
print("My name is Saira Luqman\nMy Registeration number is FA21-BCE-084\nMy First AI
Lab")
```

Output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab1\lab1_task1.py
My name is Saira Luqman
My Registeration number is FA21-BCE-084
My First AI Lab


Process finished with exit code 0
```

In Lab Task3

Code:

```
a = 10
if a == 1:
    print("The value of a is 1")
else:
    print("The value of a is  equal to 10")
```

Output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab1\task3.py
The value of a is  equal to 10

Process finished with exit code 0
```

In Lab Task4

Code:

```
print('Print value of Integer... ')
integer_us = 5
```

```python
print(integer_us)

print('Class of the integer is')
print(type(integer_us))

print('Print Value of Float...')
float_us = 7.9
print(float_us)

myfloat = float(integer_us)
print(myfloat)

print('Convert Value of float to integer...')
myint = int(float_us)
print(myint)

mystring = "Hello World!"
print(mystring)

one = 1
two = 2
three = one + two
print(three)

hello = "Hello, "
world = "World!"
helloworld = hello +" "+ world
print(helloworld)

a, b = 3,4
print(a,b)
```

Output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab1\task4.py
Print value of Integer...
5
Class of the integer is
<class 'int'>
Print Value of Float...
7.9
5.0
Convert Value of float to integer...
7
Hello World!
3
Hello,    World!
3 4


Process finished with exit code 0
```

In Lab task 5

Code:

```python
myList = []
myList.append(1)
myList.append(2)
myList.append(3)

print(myList[-1])

names = ["saira", 1, "ahmad", 2, "ali", 3, "abdullah", 4]
print("Number of names in list: {}".format(len(names)))

new_list = []

for x in names:
    if isinstance(x, str):
        new_list.append(x)
print("updated List with number of only names in list:{}".format(len(new_list)))

for x in new_list:
    print("{}".format(x))
```

Output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab1\task5.py
3
Number of names in list: 8
updated List with number of only names in list:4
saira
ahmad
ali
abdullah


Process finished with exit code 0
```

In Lab Task6

Code:

```python
import numpy as np

totalScore = 100
noOfTries =5
values = np.random.randint(10)
userInput =  int(input("Enter an integer: "))

if(userInput == values):
    print("Your guess is correct")
else:
    while(userInput != values):
        if(userInput > values):
            print("Your input is greater than the number, try again")
            totalScore = totalScore-5
            noOfTries -=1
            if(noOfTries ==0):
                print("You have lost")
                break
            userInput =  int(input("Enter an integer: "))
        else:
            print("Your input is lower than the number, try again")
            totalScore = totalScore-5
            noOfTries -=1
            if(noOfTries==0):
                print("You have lost")
                break
            userInput =  int(input("Enter an integer: "))
```

```
if(totalScore > 75):
    print("Your score is", totalScore)
```

Output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab1\task6.py
Enter an integer: 6
Your input is greater than the number, try again
Enter an integer: 4
Your input is greater than the number, try again
Enter an integer: 3
Your input is greater than the number, try again
Enter an integer: 2
Your score is 85


Process finished with exit code 0
```