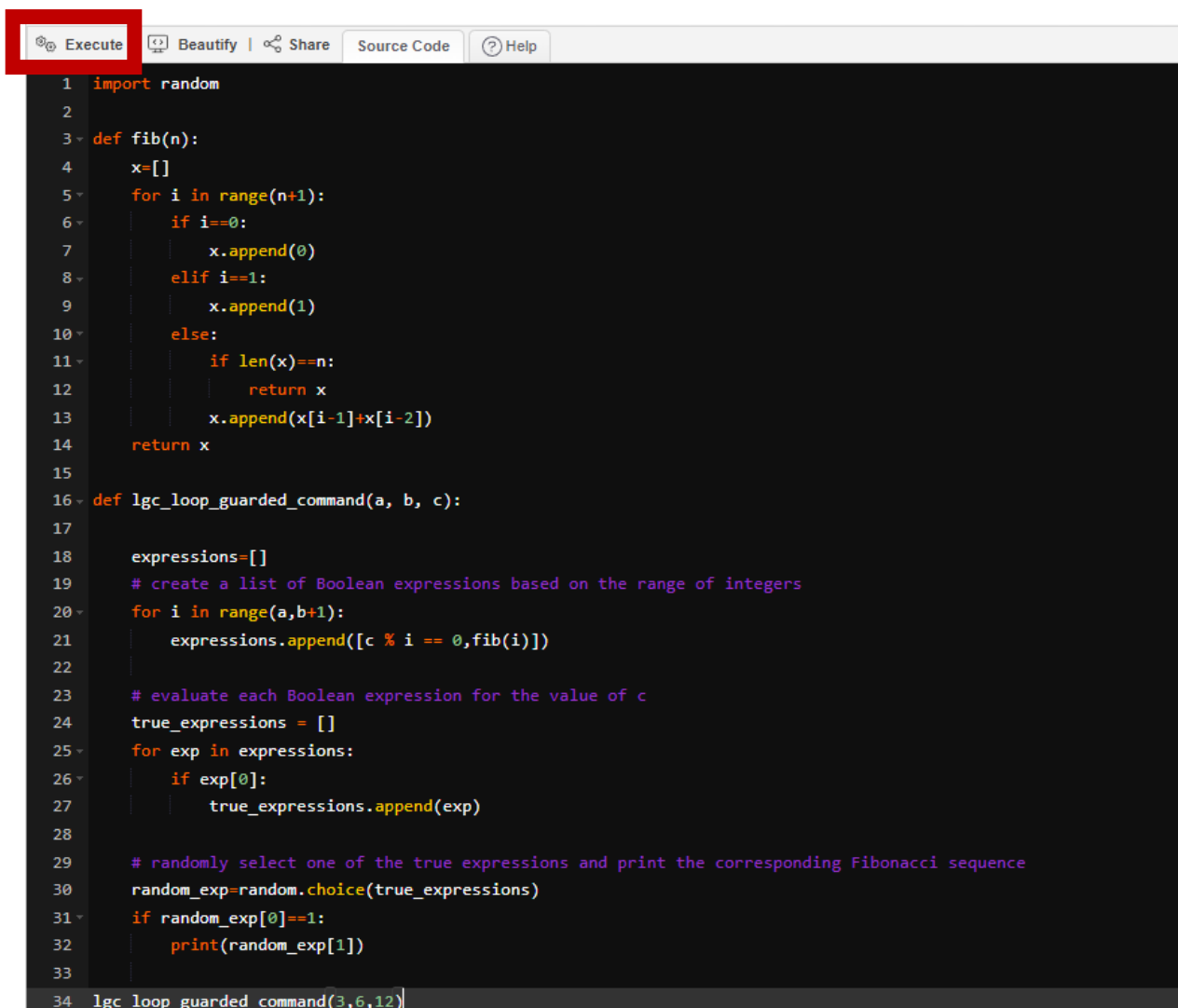


Write a program/function in any programming language that will print out data type, number of byte(s) used by the data type, and its range of data value for ALL primitive/built-in data types.

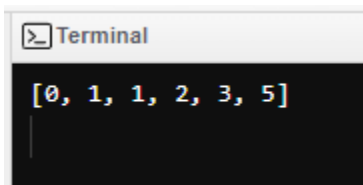
Steps for execution

1. Copy the code from *“Advanced Software Paradigms_CSCI_6221_10_Sagar_Sheth_HW3.txt”*.
2. Open the below link in the web browser.
 - a. https://www.tutorialspoint.com/online_python_compiler.php
3. Paste the Code in and Click on the Execute Button.



```
1 import random
2
3 def fib(n):
4     x=[]
5     for i in range(n+1):
6         if i==0:
7             x.append(0)
8         elif i==1:
9             x.append(1)
10        else:
11            if len(x)==n:
12                return x
13            x.append(x[i-1]+x[i-2])
14    return x
15
16 def lgc_loop_guarded_command(a, b, c):
17
18     expressions=[]
19     # create a list of Boolean expressions based on the range of integers
20     for i in range(a,b+1):
21         expressions.append([c % i == 0,fib(i)])
22
23     # evaluate each Boolean expression for the value of c
24     true_expressions = []
25     for exp in expressions:
26         if exp[0]:
27             true_expressions.append(exp)
28
29     # randomly select one of the true expressions and print the corresponding Fibonacci sequence
30     random_exp=random.choice(true_expressions)
31     if random_exp[0]==1:
32         print(random_exp[1])
33
34 lgc_loop_guarded_command(3,6,12)
```

4. The below output should be displayed on the terminal.

A terminal window with a title bar that says "Terminal". The window has a black background and displays the text "[0, 1, 1, 2, 3, 5]" in a light blue font. The text is on the first line, and the second line is empty.

```
Terminal  
[0, 1, 1, 2, 3, 5]  
|
```