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CSE - B2
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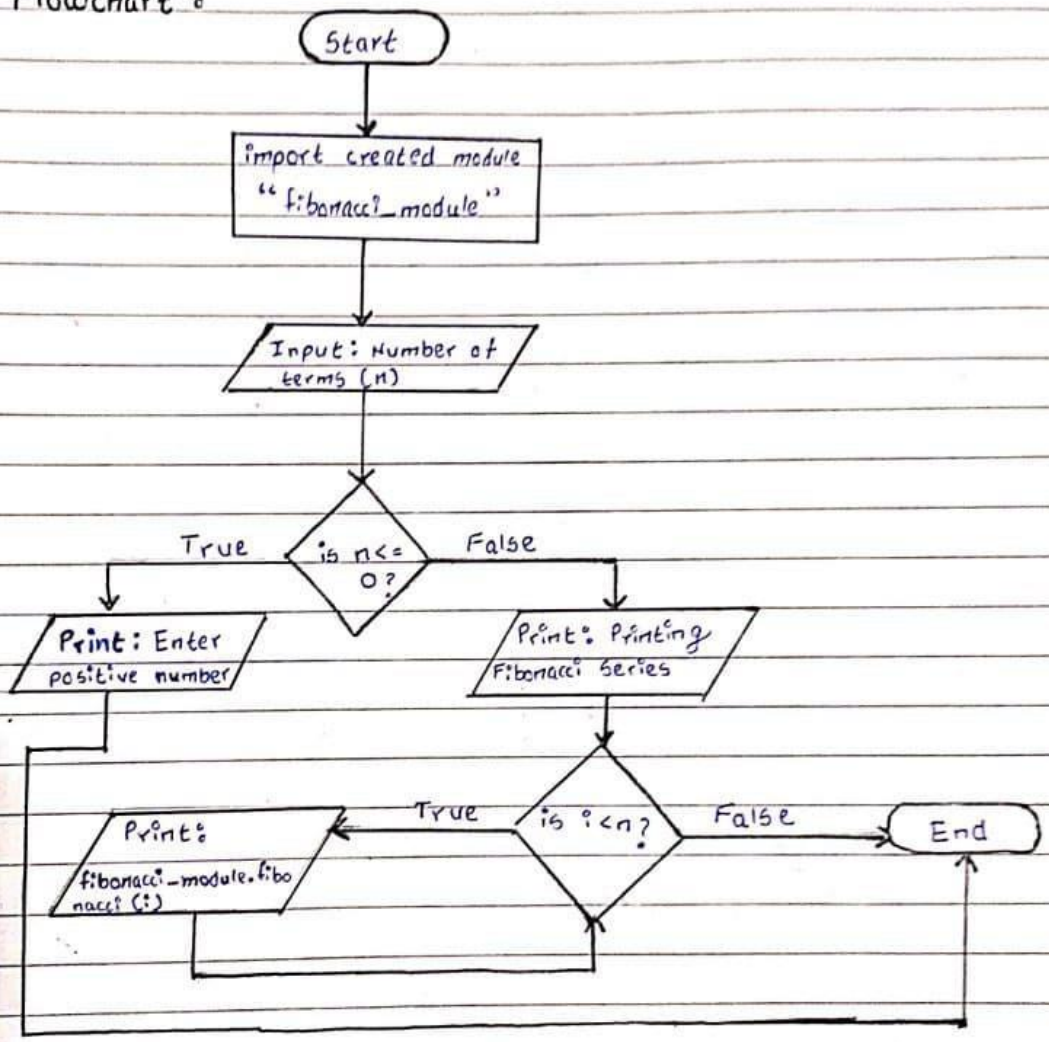
Programming and Problem Solving Lab: End Semester Exam

Title: Write a python program to find the Fibonacci series using modules

Flowchart:



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Source Code:

1. imported module saved as fibonacci_module.py

```
#fibonacci series
#module to import
#using recursive function

def fibonacci(n):
    if n<=1:
        return n
    else:
        return (fibonacci(n-1) + fibonacci(n-2))
```

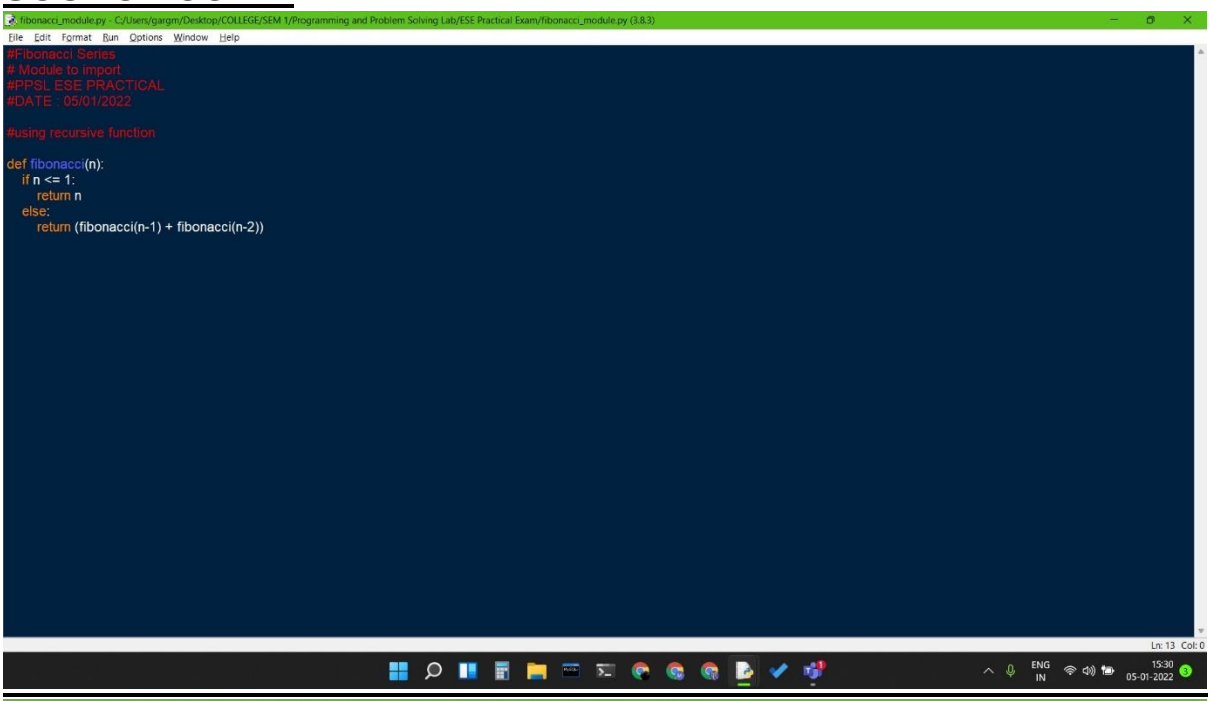
2.
```
#fibonacci series by importing module
import fibonacci_module
n = int(input("Enter number of terms to be printed: "))
if n <= 0:
    print("Please input a positive integer only!")
else:
    print(f"Printing Fibonacci series with {n} terms:")
    for i in range(n):
        print(fibonacci_module.fibonacci(i))
```

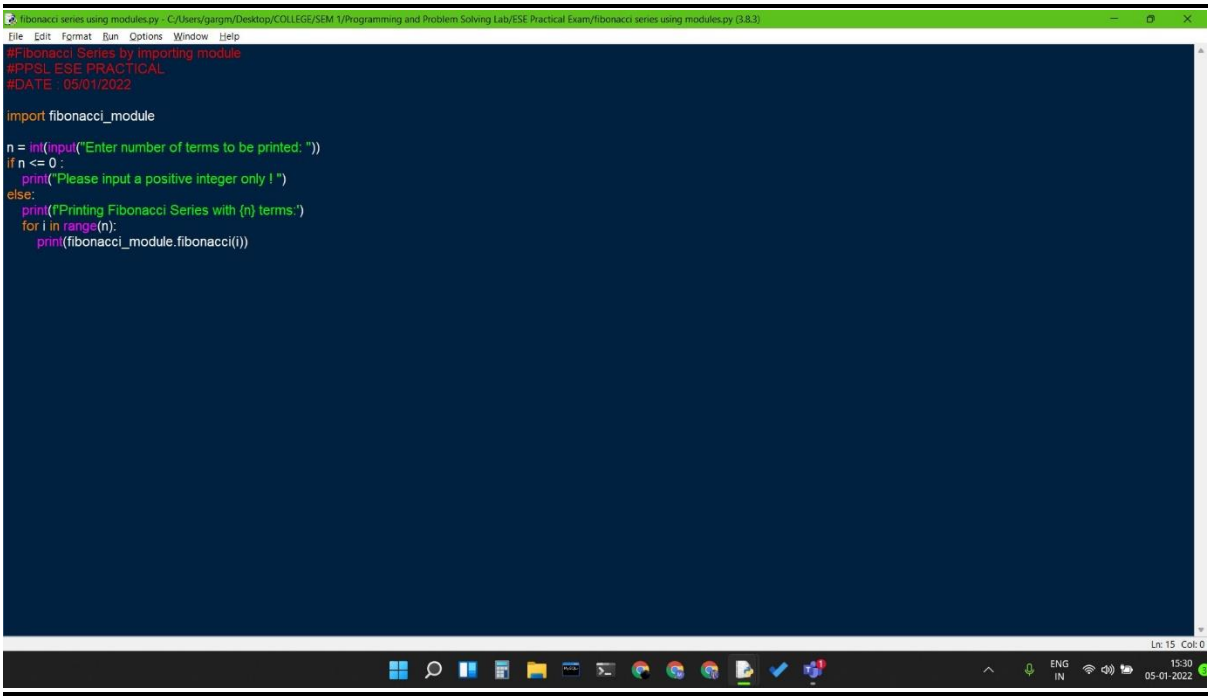
Learning Outcomes:

The following program helped to understand the use of modules. It helped to understand how to define a function, recursive function and import it into another program to optimise the code and reduce the number of lines and thus reuse the same functions many times throughout the program. Thus, it helped to realise the utility of modules.
It also helped to understand the syntax of f-string (formatted string).

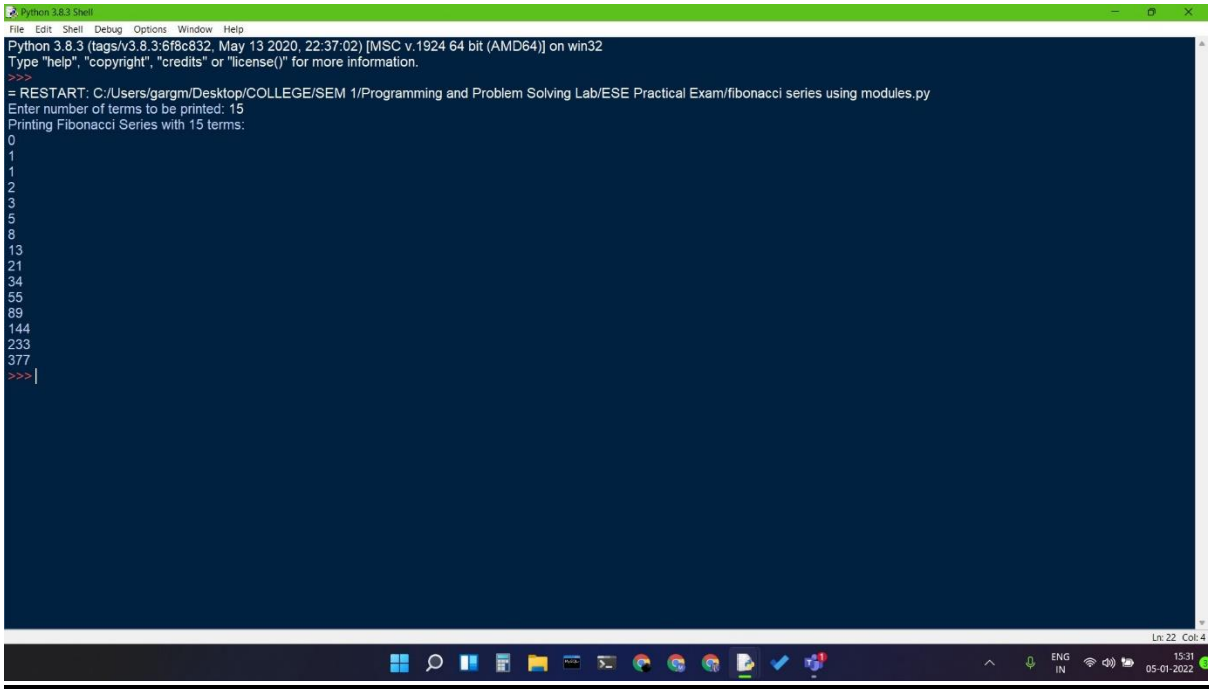
SCREENSHOTS

- **SOURCE CODE:**





- **OUTPUT:**


Python 3.8.3 Shell
File Edit Shell Debug Options Window Help
Python 3.8.3 (tags/v3.8.3:6f8c832, May 13 2020, 22:37:02) [MSC v.1924 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/gargm/Desktop/COLLEGE/SEM 1/Programming and Problem Solving Lab/ESE Practical Exam/fibonacci series using modules.py
Enter number of terms to be printed: 15
Printing Fibonacci Series with 15 terms:
0
1
1
2
3
5
8
13
21
34
55
89
144
233
377
>>>
Ln: 22 Col: 4
ENG
IN
15:31
05-01-2022