S.No: 24	Exp. Name: ***Write a python program to define a module to find Fibonacci Numbers and import the module to another program.***	Date:2025-04-23

Aim:

Write a python program to define a module to find Fibonacci Numbers and import the module to another program.

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- To create a Python program that generates a Fibonacci sequence up to a given maximum value.

Algorithm:

Step 1: Import the fibonacci_module.
Step 2: Accept an integer input from the user as the maximum value (n).
Step 3: If n is greater than 0:

- Generate the Fibonacci sequence up to n using the generate_fibonacci_sequence() function from the fibonacci_module.
- Print the generated Fibonacci series.

Step 4: If n is not greater than 0, print "Please enter a positive integer".
Step 5: End the program.

Note: The fibonacci_module contains the generate_fibonacci_sequence() function to generate the Fibonacci sequence up to a specified maximum value.

Source Code:

fibonacci_program.py

```
import fibonacci_module
def main():
   try:
      n=int(input("Enter the max value: "))
      if n>0:
         fib_series=fibonacci_module.generate_fibonacci_sequence(n)
         print(f"Fibonacci series upto {n} :")
         print(" ".join(map(str,fib_series)),end=" ")
      else:
         print("Please enter a positive integer")
   except ValueError:
      print("Invalid input! Please enter a valid integer.")
if __name__ == "__main__":
   main()
```

fibonacci_module.py

```
def generate_fibonacci_sequence(count):
   """Generate the first 'count' Fibonacci numbers."""
   if count<=0:
```

```
        return[]
    elif count==1:
        return [0]
    elif count == 2:
        return [0,1]
    sequence = generate_fibonacci_sequence(count-1)
    sequence.append(sequence[-1]+sequence[-2])
    return sequence
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the max value: 10
Fibonacci series upto 10 :
0 1 1 2 3 5 8 13 21 34

Test Case - 2
User Output
Enter the max value: -9
Please enter a positive integer

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