



Design & Analysis Of Algorithm

Lab Experiment -6

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SUBJECT: DESIGN & ANALYSIS OF ALGORITHM

SUBJECT CODE: 19CSE302

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EX NO: 6

Fibonacci series.

AIM:

To write an algorithm to implement Fibonacci series .

ALGORITHM:

- 1) Define variables for first, second and the nth number.
- 2) Then run the for loop:
 - a. Print the result by adding first and the second number.
 - b. Update first and second no. with the updates values.

CODE SCREEN:

```
p = 0
q = 1
n = int(input("Enter the number of terms: "))
i = 2
List = [p, q]
while i < n:
    fib = p + q
    List.append(fib)
    p = qq = fib
    i += 1
print(List)
```

OUTPUT SCREEN :

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\python> & C:/Users/HP/AppData/Local/Programs/Python/Python310/python.exe d:/python/DAA/ficconai.py
Enter the number of terms: 5
[0, 1, 1]
[0, 1, 1, 2]
[0, 1, 1, 2, 3]
PS D:\python> 
```

TIME COMPLEXITY:

$O(N)$

RESULT:

I have studied and understood the Fibonacci series
in python language and executed the program successfully.

THANK YOU !!