Task 19

# Deep Das

1.Write a program to count number of vowels from user input string, using for loop.

Answer:

str=input("enter a string : ")

vowels=["a","e","i","o","u","A","E","I","O","U"]

def checkvowel(str):

    count=0

    for i in str:

        if i in vowels:

            count+=1

    return count

print("the input string has ",checkvowel(str)," vowels")

2.Print fibonacci series using for loop.

Answer:

count=int(input("till how many numbers you want fibonacci sequence : "))

if (count==1):

    print("[0]")

elif(count==2):

    print("[0,1]")

fibonacci=[0,1]

index=2

for i in range(count-2):

    ref=fibonacci[index-1]+fibonacci[index-2]

    fibonacci.append(ref)

    index+=1

if count>=3:

    print(fibonacci)

else:

    print("invalid input.")

3.Patterns printing

Answer:

def pattern1():

    n=14

    for i in range(1,n+1):

        if i%2==1 and i%7!=0:

            print('    \*')

        if i%7==0:

            print("\*"\*9)

pattern1()

def pattern2():

    n = 9

    for i in range(n):

        for j in range(n):

            if j == 0 or j == n-1 or i == j or i + j == n - 1:

                print('\*', end=' ')

            else:

                print(' ', end=' ')

        print()

pattern2()

def pattern3():

    n=5

    for i in range(n):

        print(' '\*(n-i-1)+'\*'\*(2\*i+1))

    for i in range(1,n):

        print(' '\*i+'\*'\*(2\*(n-i)-1))

pattern3()

def pattern4():

    n=4

    for i in range(n):

        spaces=n-i

        betweenspace=2\*i-1

        if(i==0):

            print("    1")

        else:

            print(' '\*(spaces)+chr(i+49)+' '\*(betweenspace)+chr(i+49))

    print("1 2 3 4 5")

pattern4()

def pattern5():

    n=5

    for i in range(n):

        spaces=n-i-1

        betweenspace=2\*i-1

        if(chr(65+i)=='A'):

            print("    A")

        else:

            print(' '\*spaces+chr(65+i)+' '\*betweenspace+chr(65+i))

pattern5()