Python Programs

#1 Write a python function to check the given number is even or odd

```python
num=int(input("Enter any value: "))

def evenorodd(n):
    if n%2==0:
            print(num, 'is even number')
    else:
            print(num,'is odd number')

evenorodd(num)
```

output:
Enter any value: 12
12 is even number

Enter any value: 13
13 is odd number

#2 Write a python function to check the given number is positive or negative

```python
num=int(input("Enter any value: "))


def posornegorzero(n):
    if n>0:
            print(num,'is positive number')
    elif n==0:
            print('the given number is',num)
    else:
            print(num,'is negative number')

posornegorzero(num)
```

output:
Enter any value: 8
8 is positive number

Enter any value: -9
-9 is negative number

Enter any value: 0
the given number is 0

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#3 Write a python function to check the given number is divisible by 10 or not?

```
num=int(input("Enter any number: "))

def divby10(n):
    if n%10==0:
            print(num,'is divisible by 10')
    else:
            print(num,'is not divisible by 10')

divby10(num)
```

output

```
Enter any number: 12
12 is not divisible by 10

Enter any number: 50
50 is divisible by 10
```

#4 Write a Python function to print first n even numbers

```
num=int(input('Enter any number: '))
lst=[]
def nevennums(n):
    for i in range(10000):
            if i%2==0:
                    lst.append(i)
            if len(lst)==n:
                    break
    print(lst)

nevennums(num)
```

output
```
Enter any number: 10
[0, 2, 4, 6, 8, 10, 12, 14, 16, 18]

Enter any number: 5
[0, 2, 4, 6, 8]
```

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#5 Write a Python function to print even numbers upto n

```
num=int(input('Enter any number: '))

def firstnevennums(n):
    for i in range(n+1):
        if i%2==0:
            print(i)
firstnevennums(num)
```

output

```
Enter any number: 10
0
2
4
6
8
10

Enter any number: 11
0
2
4
6
8
10
```

#6 Write a Python function to print sum of digits of number n

```
num=int(input('Enter any number: '))

def sumofdigits(n):
    s=0
    for i in range(n+1):
        s=s+i
    print(s)

sumofdigits(num)
```

output:

```
Enter any number: 15
120
```

Enter any number: 4
10

```
num1=int(input('Enter first number: '))
num2=int(input('Enter second number: '))
num3=int(input('Enter third number: '))

def largestnumber(a,b,c):
    if a>b and a>c:
        print(a,'is the largest number of',b,'and',c)
    elif b>c:
        print(b,'is the largest number of',a,'and',c)
    else:
        print(c,'is the largest number of',a,'and',b)
largestnumber(num1,num2,num3)
```

output

```
Enter first number: 10
Enter second number: 11
Enter third number: 14
14 is the largest number of 10 and 11

Enter first number: 6
Enter second number: 3
Enter third number: 2
6 is the largest number of 3 and 2
```

#8 Write a Python function to reverse the given numner or string

```
st=input('Enter any string or number: ')

def reversestring(s):
    st1=s[::-1]
    print(st1)

reversestring(st)
```

output

```
Enter any string: Python Narayana
anayaraN nohtyP
```

Enter any string: 1234
4321

#or

st=input('Enter any string or number: ')

```python
def reversestring(s):
    st1=''.join(reversed(s))
    print(st1)

reversestring(st)
```

output:
Enter any string or number: Django
ognajD

Enter any string or number: 7382
2837

#9 Write a Python function to print the factors of given numnber

num=int(input('Enter any value: '))

```python
def factors(n):
    for i in range(1,n+1):
        if n%i==0:
            print(i)

factors(num)
```

output:

Enter any value: 10
1
2
5
10

Enter any value: 20
1
2
4
5
10
20

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#10 Write a Python function to print factorial of given number

```
num=int(input('Enter any number: '))

def factorial(n):
     s=1
     for i in range(1,n+1):
          s=s*i
     print(s)
factorial(num)
```

output:

```
Enter any number: 5
120

Enter any number: 3
6
```

#11 Write a Python function to swap the given two numbers

```
num1=int(input("Enter first number: "))
num2=int(input("Enter second number: "))

def swap(x,y):
     temp=x
     x=y
     y=temp
     print('first number is',num1,', after swaping',x)
     print('second number is',num2,', after swaping',y)

swap(num1,num2)
```

output:

```
Enter first number: 13
Enter second number: 12
first number is 13 , after swaping 12
second number is 12 , after swaping 13
```

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#12 Write a Python function to check the number is prime or not

```python
num=int(input("Enter any number: "))

def primeornot(n):
    for i in range(2,n):
        if n%i==0:
            print(num,'is not a prime')
            break
    else:
        print(num,'is prime')



primeornot(num)
```

output
Enter any number: 12
12 is not a prime

Enter any number: 7
7 is prime

#13 Write a Python function to check the given number is palindrom or not

```python
n=input("Enter any number: ")

def palindromeornot(num):

    if num==str(num)[::-1]:
        print(num,'palindrome number')
    else:
        print(num,'not a palindrome number')

palindromeornot(n)
```

output:

Enter any number: 12321
12321 palindrome number

Enter any number: 123432
123432 not a palindrome number

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```python
num=int(input('Enter any three digit number: '))

def armstrongornot(n):
    s=0
    while n>0:
        digit=n%10
        s+=digit**3
        n//=10
    if num==s:
        print(num,'is a armstrong number')
    else:
        print(num,'is not a armstrong number')
armstrongornot(num)
```

output:

Enter any three digit number: 151
151 is not a armstrong number

Enter any three digit number: 153
153 is a armstrong number

#15 print fibonacci series for below n number

```python
num=int(input("Enter any number: "))
def fibonacci(n):
    t1=0
    t2=1
    for i in range(10000):
        temp=t1+t2
        t1=t2
        t2=temp
        if t1>=n:
            break
        print(t1)
fibonacci(num)
```

output:

Enter any number: 100
1
1
2

3
5
8
13
21
34
55
89

Enter any number: 10
1
1
2
3
5
8

#16 Write a Python function to print first 10 fibonacci series numbers

```python
num=int(input('Enter any number: '))
def fibonacci1(n):
    t1=0
    t2=1
    lst=[0]
    temp=0
    while temp<10000:
        temp=t1+t2
        t1=t2
        t2=temp
        lst.append(t1)
        if len(lst)==n:
            break
    for i in lst:
        print(i)

fibonacci1(num)
```

output:

Enter any number: 5
0
1
1
2
3

Enter any number: 7
0
1
1
2
3
5
8

#17 Write a Python function to print the given three values in asc and desc order

```python
a=eval(input("Enter first value: "))
b=eval(input("Enter second value: "))
c=eval(input("Enter third value: "))

def orderofvalues(x,y,z):
    if x>y and x>z:
        if y>z:
            print('the desc order is ',x,y,z)
            print('the asc order is',z,y,x)
        else:
            print('the desc order is ',x,z,y)
            print('the asc order is ',y,z,x)
    elif y>x and y>z:
        if x>z:
            print('the desc order is ',y,x,z)
            print('the asc order is ',z,x,y)
        else:
            print('the desc order is ',y,z,x)
            print('the asc order is',x,z,y)
    elif z>x and z>y:
        if x>y:
            print('the desc order is ',z,x,y)
            print('the asc order is ',y,x,z)
        else:
            print('the desc order is ',z,y,x)
            print('the asc order is ',x,y,z)

orderofvalues(a,b,c)
```

output:

Enter first value: 12
Enter second value: 11

Enter third value: 15
the desc order is   15 12 11
the asc order is   11 12 15

Enter first value: 3
Enter second value: 2
Enter third value: 1
the desc order is   3 2 1
the asc order is 1 2 3

#18 Write a Python to check the marital status, gender and age

```
marsta=input("Enter marital status(married or single): ").lower()
gen=input("Enter your gender(male or female): ").lower()
age=int(input("Enter your age: "))


if marsta=="married":
    print("You are not allowed to marry again")
elif marsta=="single":
    if gen=="male":
        if age>=21:
            print("Congrates, You are eligible to marry")
        else:
            print("Sorry, You are not eligible to marry")
    elif gen=="female":
        if age>=18:
            print("Congrates, You are eligible to marry")
        else:
            print("Sorry, You are not eligible to marry")
    else:
        print('You entered invalid gender')
else:
    print("You entered invalid marital status")
```

output:

Enter marital status(married or single): married
Enter your gender(male or female): male
Enter your age: 24
You are not allowed to marry again

Enter marital status(married or single): married
Enter your gender(male or female): female
Enter your age: 17

You are not allowed to marry again

Enter marital status(married or single): single
Enter your gender(male or female): male
Enter your age: 22
Congrates, You are eligible to marry

#19 Write a Python function to print nth table

```
num=int(input("Enter any number: "))

def tabledisplay(n):
     for i in range(1,11):
          print(n,"*",i,"=",n*i)

tabledisplay(num)
```

output

```
Enter any number: 10
10 * 1 = 10
10 * 2 = 20
10 * 3 = 30
10 * 4 = 40
10 * 5 = 50
10 * 6 = 60
10 * 7 = 70
10 * 8 = 80
10 * 9 = 90
10 * 10 = 100
```

#20 Write a Python function to remove vowels from given string

```
st=input('Enter any string :')
v='aieouAEIOU'
st=list(st)

for i in st:
     if i in v:
          st=st.replace(i,'')
     st=''.join(st)
print(st)
```

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output

Enter any string :Python Narayana
Pythn Nryn

Enter any string :Django Framework
Djng Frmwrk

#21 Write a Python function to copy a given string into new variable and count how many characters are copied

```
st=input('Enter any string: ')

def copystring(st):
    c=0
    st1=''
    for i in st:
        st1+=i
        c=c+1
    print(st1)
    print(c)

copystring(st)
```

output

Enter any string: Python Narayana
Python Narayana
15

#22 Write a Python function to count no.of digits in a given number

```
num=input('Enter any number: ')

def countdigits(n):
    n1=len(n)
    print(n1)

countdigits(num)
```

output

Enter any number: 12345
5

Enter any number: 788
3

#23 Write a Python function to print power values based on two given base and exponent values

```
base=int(input('Enter base value: '))
expo=int(input('Enter exponent value: '))

def power(m,n):
    x=base**expo
    print(x)

power(base,expo)
```

output

Enter base value: 3
Enter exponent value: 2
9

Enter base value: 5
Enter exponent value: 4
625

#24 Write a Python function to check whether user given string or number

```
x=input('Enter eaither string or number: ')

def strornum(m):
    if m.isalpha()==True:
        print(x,'is a string value')
    elif m.isnumeric()==True:
        print(x,'is a number value')
    elif m.isalnum()==True:
        print(x,'is alpha-numeric value')
    else:
        print(x,'is not a complete string or number or alpha-numeric value')
```

strornum(x)

<u>output</u>

Enter eaither string or number: Python
Python is a string value

Enter eaither string or number: 1038
1038 is a number value

Enter eaither string or number: cs1035
cs1035 is alpha-numeric value

Enter eaither string or number: sai@gmail.com
sai@gmail.com is not a complete string or number or alpha-numeric value

#24 Write a Python function to check whether the given character is vowel or consonant

```python
char=input('Enter any chararcter: ')

def vowelorconso(ch):
    vowel='aeiouAEIOU'
    if ch in vowel:
        print(char,'is a vowel')
    else:
        print(char,'is a consonant')

vowelorconso(char)
```

<u>output</u>

Enter any chararcter: a
a is a vowel

Enter any chararcter: E
E is a vowel

Enter any chararcter: x
x is a consonant

Enter any chararcter: Y
Y is a consonant

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#25 Write a Python function to print the follwing pattern

```
****
****
****
****


n=4
def pattern1(n):
    for i in range(n):
        for j in range(n):
            print('*',end=' ')
        print('\n')
pattern1(n)
```

#26 Write a Python function to print the following pattern

```
*
**
***
****


n=4
def pattern2(n):
    for i in range(n+1):
        for j in range(i):
            print('*',end=' ')
        print('\n')
pattern2(n)
```

#27 Write a Python function to print the following pattern

```
        *
      * * *
    * * * * *
  * * * * * * *
* * * * * * * * *


n=5
def pattern3(n):
    k=0
    for i in range(1,n+1):
        for j in range(1,(n-i)+1):
```

```
                print(end='    ')
        while(k != (2*i-1)):
                print('* ',end='')
                k=k+1
        k=0
        print('\n')

pattern3(n)
```

```
        *
       * *
      * * *
     * * * *
    * * * * *
```

```
n=4

def pattern4(n):
    m=8
    for i in range(n+1):
        for j in range(m):
            print(end=' ')
        m=m-2
        for k in range(i+1):
            print('* ',end='')
        print()
pattern4(n)
```

```
'''
* * * * *
* * * *
* * *
* *
*
```

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```python
n=5
def pattern5(n):
    for i in range(n+1):
        for j in range(1,(n-i)+1):
            print('*',end=' ')
        print()

pattern5(n)
```