

# Python Assignment 1

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PYTHONASSIGNMENT1  
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```
[1]: ##EVENORODDNUMBER  
n=int(input("Enteranumber:")) a=n%2  
if(a==0):  
    print(n,"is an even number")  
else:  
    print(n,"isanodddnumber")
```

Enteranumber:2

2 is an even number

```
[2]: ##POSITIVEORNEGATIVEINTEGER  
n=int(input("Enteranumber:"))  
if(n>0):  
    print(m,"is a positive integer")  
elif(n==0):  
    print(m,"iszero")  
else:  
    print(m,"is a negative integer")
```

Enteranumber:-10

-10 is a negative integer

```
[4]: ##PRIMENUMBERS  
defprime(number):  
    ifnumber<=1:  
        returnFalse  
    fori in range(2,int(number**0.5)+1):  
        ifnumber%i==0:  
            returnFalse  
    returnTrue  
  
num=int(input("Enter a number:"))  
ifprime(num):
```

```
    print(f"{num}is a prime number")
else:
    print(f"{num}is not a prime number")
```

Enter a number:34

34 is not a prime number

```
[5]: ##Palindrome
word=input("Enter a word:")
word=word.lower()
word1=word[::-1]
if(word==word1):
    print(word,"isapalindrome")
else:
    print(word,"isnotapalindrome")
```

Enter a word:malayalam

malayalamisapalindrome

```
[6]: ##Sumof2numbers
a=int(input("Enternumber1:"))
b=int(input("Enternumber2:"))
c=a+b
print("thesumof",a,"and",b,"is",c)
```

Enternumber1: 18

Enternumber2: 7

thesumof18and7is25

```
[7]: ##Sumof2numbersusingfunctions
defsum(a,b):
    c=a+b
    returnc
a=int(input("Enternumber:"))
b=int(input("Enternumber:"))
print("thesumof",a,"and",b,"is",sum(a,b))
```

Enternumber: 34

Enternumber: 43

thesumof34and43is77

```
[9]: ##MAXOF2NUMBERS
a=int(input("Enteranumber:"))
b=int(input("Enteranumber:"))
if(a>b):
    print(a,"isgreaterthan",b)
```

```
else:
    print(a,"islesserthan",b)
```

Enteranumber: 987

Enteranumber: 657

987isgreaterthan657

```
[10]: ##MINOF2NUMBERS
c=int(input("Enteranumber:"))
d=int(input("Enteranumber:"))
if(c<d):
    print(c,"islesserthan",d)
else:
    print(d,"islesserthan",c)
```

Enteranumber: 65

Enteranumber: 89

65islesserthan89

```
[11]: ##FIBONACCISEQUENCE
num=int(input("EntertheFibonacciSerieslength:"))

a=0
b=1

print("TheFibonacciserieswith",num,"termsis:")
print(a,b,end="")
fori inrange(2,num):
    c=a+b
    print(c,end="")
    a=b
    b=c
```

EntertheFibonacciSerieslength: 10

TheFibonacciserieswith10termsis:

0112358132134

```
[12]: deffact(num):
    ifnum==0:
        return1
    else:
        returnnum*fact(num-1)

num=int(input("Enterthevalueofthefactorial:"))
print("thefactorialof",num,"is",fact(num))
```

Enter the value of the factorial:

& the factorial of

[13]: *##GCD OF TWO NUMBERS*

```
def gcd(a,b):  
    while b:  
        a,b=b,a%b  
    return a  
  
num1=int(input("Enter the number1:"))  
num2=int(input("Enter the number2:"))  
print("\n The GCD of",num1,"and",num2,"is",gcd(num1,num2))
```

Enter the number1: 56

Enter the number2: 68

The GCD of 56 and 68 is 4

[15]: *##SWAP 2 NUMBERS*

```
a=45  
b=18  
  
temp=a  
a=b  
b=temp  
  
print("After swapping: \na=",a,"b=",b)
```

After swapping:

a= 18 b= 45

[17]: *##reverse number in string*

```
a=int(input("Enter any number:"))  
a=str(a)  
b=a[::-1]  
print("The unreversed version of a:",a)  
print("The reversed version of a:",b)
```

Enter any number: 45634

The unreversed version of a: 45634

The reversed version of a: 43654

[19]: *##Guessing a number using random*

```
import random  
num2=random.randint(1,100)
```

```
tries=0
while True:
    num1 = int(input("Enter a number: "))
    tries+=1
    if(num1==num2):
        print("That is the correct answer")
        break
    elif(num1<num2):
        print("The number you have entered is lower than the actual number.")
    else:
        print("The number you have entered is higher than the actual number")
```

Enter a number: 34

The number you have entered is lower than the actual number.

Enter a number: 45

The number you have entered is lower than the actual number.

Enter a number: 56

The number you have entered is higher than the actual number

Enter a number: 54

The number you have entered is higher than the actual number

Enter a number: 52

The number you have entered is higher than the actual number

Enter a number: 50

The number you have entered is lower than the actual number.

Enter a number: 51

That is the correct answer

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