

# G C TRUPTI

November 30, 2023

PYTHON ASSIGNMENT 1  
G C TRUPTI

```
[20]: ##EVEN OR ODD NUMBER
n = int(input("Enter a number: "))
a=n%2
if(a==0):
    print(n,"is an even number")
else:
    print(n,"is an odd number")
```

Enter a number: 45

45 is an odd number

```
[21]: ##POSITIVE OR NEGATIVE INTEGER
m = int(input("Enter a number:"))
if(m>0):
    print(m,"is a positive integer")
elif(m==0):
    print(m,"is zero")
else:
    print(m,"is a negative integer")
```

Enter a number: -98

-98 is a negative integer

```
[22]: ##PRIME NUMBERS
def prime(number):
    if number <= 1:
        return False
    for i in range(2, int(number**0.5) + 1):
        if number % i == 0:
            return False
    return True

num = int(input("Enter a number:"))
if prime(num):
```

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

Enter a number: 45

45 is not a prime number

```
[23]: ##Palindrome
word = input("Enter a word:")
word = word.lower()
word1 = word[::-1]
if(word==word1):
    print(word,"is a palindrome")
else:
    print(word,"is not a palindrome")
```

Enter a word: Step on no pets

step on no pets is a palindrome

```
[24]: ##Sum of 2 numbers
a = int(input("Enter number 1: "))
b = int(input("Enter number 2: "))
c = a+b
print("the sum of",a,"and",b,"is",c)
```

Enter number 1: 34

Enter number 2: 28

the sum of 34 and 28 is 62

```
[25]: ##Sum of 2 numbers using functions
def sum(a,b):
    c = a+b
    return c
a = int(input("Enter number: "))
b = int(input("Enter number: "))
print("the sum of",a,"and",b,"is",sum(a,b))
```

Enter number: 45

Enter number: 7

the sum of 45 and 7 is 52

```
[26]: ##MAX OF 2 NUMBERS
a = int(input("Enter a number: "))
b = int(input("Enter a number: "))
if(a>b):
    print(a,"is greater than",b)
```

```
else:
    print(a,"is lesser than",b)
```

Enter a number: 334

Enter a number: 234

334 is greater than 234

```
[27]: ##MIN OF 2 NUMBERS
c = int(input("Enter a number: "))
d = int(input("Enter a number: "))
if(c<d):
    print(c,"is lesser than",d)
else:
    print(d,"is lesser than",c)
```

Enter a number: 45

Enter a number: 87

45 is lesser than 87

```
[11]: ##FIBONACCI SEQUENCE
num = int(input("Enter the Fibonacci Series length: "))

a = 0
b = 1

print("The Fibonacci series with", num, "terms is: ")
print(a, b, end=" ")
for i in range(2,num):
    c = a + b
    print(c, end=" ")
    a = b
    b = c
```

Enter the Fibonacci Series length: 10

The Fibonacci series with 10 terms is:

0 1 1 2 3 5 8 13 21 34

```
[28]: def fact(num):
    if num == 0:
        return 1
    else:
        return num*fact(num-1)

num = int(input("Enter the value of the factorial: "))
print("the factorial of ",num,"is",fact(num))
```

Enter the value of the factorial: 5

the factorial of 5 is 120

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

```
def gcd(a,b):  
    while b:  
        a, b = b, a % b  
    return a  
  
num1 = int(input("Enter the number 1: "))  
num2 = int(input("Enter the number 2: "))  
print("\n The GCD of",num1,"and",num2,"is",gcd(num1, num2))
```

Enter the number 1: 445

Enter the number 2: 678

The GCD of 445 and 678 is 1

[30]: *##SWAP 2 NUMBERS*

```
a = 18  
b = 7  
  
temp = a  
a = b  
b = temp  
  
print("After swapping: \n a= ",a,"b= ",b)
```

After swapping:

a= 7 b= 18

[31]: *##reverse num 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: 46578

The unreversed version of a: 46578

The reversed version of a: 87564

[32]: *##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 higher than the actual number  
Enter a number: 23  
The number you have entered is higher than the actual number  
Enter a number: 16  
The number you have entered is lower than the actual number.  
Enter a number: 18  
The number you have entered is lower than the actual number.  
Enter a number: 19  
The number you have entered is lower than the actual number.  
Enter a number: 22  
That is the correct answer

[ ]: