

prajwal-gowda-s-k

November 30, 2023

PYTHON ASSIGNMENT 1  
PRAJWAL GOWDA S K

```
[1]: ##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: 224

224 is an even number

```
[2]: ##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: -18

-18 is a negative integer

```
[4]: ##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: 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,"is a palindrome")
else:
    print(word,"is not a palindrome")
```

Enter a word: malayalam

malayalam is a palindrome

```
[6]: ##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: 18

Enter number 2: 7

the sum of 18 and 7 is 25

```
[7]: ##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: 34

Enter number: 43

the sum of 34 and 43 is 77

```
[9]: ##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: 987

Enter a number: 657

987 is greater than 657

```
[10]: ##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: 65

Enter a number: 89

65 is lesser than 89

```
[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

```
[12]: 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: 8

the factorial of 8 is 40320

[13]: *##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: 56

Enter the number 2: 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: \n a= ",a,"b= ",b)
```

After swapping:

a= 18 b= 45

[17]: *##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: 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

[ ]: