nandith-m-n

November 30, 2023

PYTHON ASSIGNMENT 1
NANDITH M N

[20]:
```python
##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]:
```python
##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]:
```python
##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):
```

```python
        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]:
```python
##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]:
```python
##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]:
```python
##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]:
```python
##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)
```

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

```
Enter a number:  334
Enter a number:  234

334 is greater than 234
```

```python
[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
```

```python
[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
```

```python
[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))
```

3

```
Enter the value of the factorial:  5

the factorial of  5 is 120
```

[29]:
```python
##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]:
```python
##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]:
```python
##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]:
```python
##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

[ ]: