Ruchitha R

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PYTHON ASSIGNMENT 1
Ruchitha R

[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
```

```
[ ]:
```