In [6]:
```
#11. Write a python program to find the factorial of a number
import numpy as np

def factorial(n):
    if n ==0:
        return 1
    else: return n* factorial(n-1)

num = 9
print(f"the factorial of {num} is {factorial(num)}" )
```

```
the factorial of 9 is 362880
```

In [*]:
```
#12. Write a python program to find whether a number is prime or composite.

num = int(input("Enter any number"))

if num > 1:
    for i in range (2, num):
        if (num % i) ==0:
            print (num, "is a composite number")
            break
    else: print (num, "is a prime number")

else:print(num, "is neither a prime nor composite")
```

```
Enter any number
```

In [*]:
```
#13Write a python program to check whether a given string is palindrome or not

string_2 = input("Enter the string to check if it is a palindrome:")
string_2 = string_2.casefold()
reversed_string = reversed (string_2)
if (list string_2) == (reversed_string):
    print (“The string is a palindrome.”)

else:

    print(“The string is a not palindrome.”)
```

In [*]:
```
#14. Write a Python program to get the third side of right-angled triangle from two given sides.

import math
def pythagoras(opposite_side,adjacent_side):
    hypotenuse = math.sqrt(opposite_side**2 + adjacent_side**2)
    return hypotenuse

opposite_side = float(input("Enter the length of the opposite side: "))
adjacent_side = float(input("Enter the length of the adjacent side: "))
print(f"The length of the hypotenuse is **{pythagoras(opposite_side, adjacent_side:).2f}**units."
```

In [*]:
```
#15 Write a python program to print the frequency of each of the characters present in a given str

def char_frequency(str1):
    dict = {}
    for n in str1:
        keys = dict.keys()
        if n in keys:
            dict[n] += 1

        else:
            dict[n] = 1
    return dict
print(char_frequency(''))
```

In [ ]:
```

```