python worksheet_1.internship

February 19, 2022

#Write a python program to find the factorial of a numberdef factorial(num):

[5]:
```
#Write a python program to find the factorial of a numberdef factorial(num):
def factorial(num):
    """This is a recursive function that calls
   itself to find the factorial of given number"""
    if num == 1:
        return num
    else:
        return num * factorial(num - 1)


# We will find the factorial of this number
num = int(input("Enter a Number: "))

if num < 0:
    print("Factorial cannot be found for negative numbers")
elif num == 0:
    print("Factorial of 0 is 1")
else:
    print("Factorial of", num, "is: ", factorial(num))
```

```
Enter a Number: 6
Factorial of 6 is:  720
```

Write a python program to find whether a number is prime or composite.

[10]:
```
num = 3

if num > 1:


    for i in range(2, int(num/2)+1):


        if (num % i) == 0:
            print(num, "is not a prime number")
            break
    else:
```

```
        print(num, "is a prime number")

else:
    print(num, "is not a prime number")
```

```
3 is a prime number
```

Write a python program to check whether a given string is palindrome or not.

[11]:
```
def isPalindrome(s):
    return a == a[::-1]



a = "malayalam"
ans = isPalindrome(a)

if ans:
    print("Yes")
else:
    print("No")
```

```
Yes
```

Write a Python program to get the third side of right-angled triangle from two given sides.

[13]:
```
import math

a = float(input("Enter base: "))
b = float(input("Enter height: "))

c = math.sqrt(a ** 2 + b ** 2)

print("Hypotenuse =", c)
```

```
Enter base: 4
Enter height: 3
Hypotenuse = 5.0
```

Write a python program to print the frequency of each of the characters present in a given string.

[15]:
```
str1 = input ("Enter the string: ")
d = dict()
for c in str1:
    if c in d:
        d[c] = d[c] + 1
    else:
        d[c] = 1
print(d)
```

```
Enter the string: Good Morning
{'G': 1, 'o': 3, 'd': 1, ' ': 1, 'M': 1, 'r': 1, 'n': 2, 'i': 1, 'g': 1}
```

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