

In [ ]:

*#1.1 Write a Python Program(with class concepts) to find the area of the triangle using the #formula.  
 #area = (s\*(s-a)\*(s-b)\*(s-c)) \*\* 0.5  
 #Function to take the length of the sides of triangle from user should be defined in the pa  
 #class and function to calculate the area should be defined in subclass.*

In [60]:

```
class area_of_triangle:
    def __init__(a, side1, side2, side3):
        a.side1 = side1
        a.side2 = side2
        a.side3 = side3

    def yo(a):
        perimeter = (a.side1+a.side2+a.side3)/2

        yo = (perimeter *(perimeter-a.side1)*(perimeter-a.side2)*(perimeter-a.side3))**0.5
        return yo
final = area_of_triangle(2,3,3)
print(final.yo())
```

2.8284271247461903

In [ ]:

*#1.2 Write a function filter\_long\_words() that takes a list of words and an integer n and r  
 #the list of words that are longer than n.*

In [61]:

```
def filter_long_words(num,n):
    result = []
    for i in range(len(num)):
        if len(num[i]) > n:
            result.append(num[i])
    return result
```

In [62]:

```
num = ["gdf","hfjffj","jajaj","er","lkjkk","oplfj","qwer"]
n = 2
filter_long_words(num,n)
```

Out[62]:

['gdf', 'hfjffj', 'jajaj', 'lkjkk', 'oplfj', 'qwer']

In [63]:

*#2.1 Write a Python program using function concept that maps List of words into a list of i  
#representing the lengths of the corresponding words.  
#Hint: If a list [ ab,cde,erty] is passed on to the python function output should come as [  
#Here 2,3 and 4 are the lengths of the words in the List.*

In [64]:

```
def map_(lst):
    return list(map(len,lst))
```

In [65]:

```
lst = ["aaahhhhhhha", "sssd", "dd", "dddd"]
map_(lst)
```

Out[65]:

```
[12, 4, 2, 4]
```

In [66]:

*2 Write a Python function which takes a character (i.e. a string of length 1) and returns Tr*

In [67]:

```
def vowel_checker(inputChar):
    if(len(inputChar)==1):
        vowel_list=['a','e','i','o','u']
        if (inputChar.lower() in vowel_list):
            return_value= True
        else:
            return_value= False
    else:
        return_value="Please enter single character only!"
    return return_value

print("Enter character to check that it is Vowel or not")
input_value = input("Input Value: ")
output_value=vowel_checker(input_value)
print("Output Value:",output_value)
```

Enter character to check that it is Vowel or not

Input Value: j

Output Value: False

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