Session 3

Write python script to do the following:

- Enter a sentence from keyboard.
- Create a dictionary {word: number of characters}
- Print the words that have less than 5 characters

In [1]:
```
# Enter a sentence from keyboard
sentence = input("Enter a sentence: ")

# Create a dictionary {word: number of characters}
word_dict = {}
for word in sentence.split():
    word_dict[word] = len(word)

# Print the words that have less than 5 characters
for item in word_dict.items():
    if item[1] < 5:
        print(item[0])
```

```
Enter a sentence: This is the third session
This
is
the
```

In [2]:
```
# Enter a sentence from keyboard
sentence = input("Enter a sentence: ")

# Create a dictionary {word: number of characters}
word_dict = {word: len(word) for word in sentence.split()}

# Print the words that have less than 5 characters
for word, length in word_dict.items():
    if length < 5:
        print(word)
```

```
Enter a sentence: This is the third session
This
is
the
```

Write python functions to do the following:

- Get GCD of two numbers.
- Get the sum of numbers in a list.
- Get the sum of numbers in a list recursively.

Test your functions by input values.

In [3]:
```
def gcd(a, b):
    while b != 0:
        a, b = b, a % b
    return a

def sum_list(numbers):
    res = 0
    for n in numbers:
        res += n
    return res

def sum_list_recursive(numbers):
    if len(numbers) == 0:
        return 0
    else:
        return numbers[0] + sum_list_recursive(numbers[1:])


x = int(input("Enter x: "))
y = int(input("Enter y: "))
print("GCD of {} and {} is {}".format(x, y, gcd(x,y)))

print(sum_list([1, 2, 3, 4, 5]))

print(sum_list_recursive([1, 2, 3, 4, 5]))
```

```
Enter x: 48
Enter y: 16
GCD of 48 and 16 is 16
15
15
```

In [ ]: