In [1]:
```
  #Program to find the longest word and lenght of longest one
    #defining program

def longlen(a):
    l = 0                                #variables initialising for length, word, words list, same length words
    w = " "
    same = []
    samelen = 0
    word = a.split()
    for i in word:                      #for loop for traversing in the array
        if(len(i) > l):
            l = len(i)
            w = i
    print("The length of longest word is:", l)    #printing the length of longest word

    for i in word:
        if(len(i) >= l):
            samelen+=1
            same.append(i)                  #adding longest words of same length to new list
            b = len(same)
    if(b > 1):
        print("there are", samelen, "longest words of similar length and they are", same)
        #output of more than one result
    else:
        print("there is", samelen, "longest word and it is", same)
        #output of unique result

# program input
a = input("Enter a string: ")          #input from user
longlen(a)
```

```
Enter a string: The quick brown fox jumps over the lazy dog
The length of longest word is: 5
there are 3 longest words of similar length and they are ['quick', 'brown', 'jumps']
```

In [12]:
```
#program to remove nthindex of a non empty string

#defining program
def remove_nindex(string, n):
        first = string[:n]
        last = string[n+1:]
        print(first + last)
```

```
#taking user input and checking if string is an empty input
a = input("enter a string:   ")
if(len(a)>0):
    b = int(input("enter index number to be removed: "))
    remove_nindex(a,b)
else:
    print("Empty string")
```

```
enter a string:   Pyython
enter index number to be removed: 2
Python
```

In [3]:
```
#progam to get last part of string before specific character

#taking user input
a = input("enter a string:  ")
b = input("enter the specific character: ")

#part of string before first occurrence
first_part = a.split(b, 1)[0]
print("part of string before first occurence is  ",first_part)

#part of string before last occurrence
last_part = a.rsplit(b, 1)[0]
print("part of string before first occurence is  ",last_part)
```

```
enter a string:  The\quick\brown\fox\jumps\over\the\lazy\dog
enter the specific character: \
part of string before first occurence is   The
part of string before first occurence is   The\quick\brown\fox\jumps\over\the\lazy
```

In [4]:
```
# program to sort a string in lexicographically i.e., dictonary order

#defining the program
def sort_Lg(string):
    words = string.split()

#sorting the strings directly will give priority to capital letters in the strings of the list hence,
#converting all the strings in the list to lower case
    words_lower = []
    for word in words:
        words_lower.append(word.lower())
```

```
#sorting and printing the strings in the sentence lexicographically
    words_lower.sort()
    for i in words_lower:
        print(i)

#taking user input
string = input("Enter your string: ")
sort_Lg(string)
```

```
Enter your string: The quick brown fox jumps over the lazy dog
brown
dog
fox
jumps
lazy
over
quick
the
the
```

In [88]:

```
#program to remove spaces from a given string

#defining function
def remove_Space(string):
    a = string.replace(" ", "")
    print(a)

#taking user input
s = input("enter the string to remove spaces: ")
remove_Space(s)
```

```
enter the string to remove spaces: The quick brown fox jumps over the lazy dog
Thequickbrownfoxjumpsoverthelazydog
```