1) Write a function called "find_longest_word" that takes a sentence as a string and returns the longest word in the sentence. The function should ignore punctuation and consider only alphabetic characters.

In [97]:
```
def longest_word():
    words=input("enter The Words = ")
    li=words.split()
    for i in li:
        print(i,"=",len(i),"Letters")
    print("the Largest Value = ",max(li))
longest_word()
```

```
enter The Words = ajith krishna palakkad
ajith = 5 Letters
krishna = 7 Letters
palakkad = 8 Letters
the Largest Value =  palakkad
```

2) Write a function called "reverse_string" that takes a string as an argument and returns the reverse of that string. Implement the function using a loop and without using built-in string reversal functions.

In [63]:
```
def reversal():
    string=input("Enter The String = ")
    rev=""
    for i in string:
        rev=i+rev
    return rev
print("Reversal value = ",reversal())
```

```
Enter The String = ajith krishna
Reversal value =  anhsirk htija
```

3) Create a function called "find_common_elements" that takes two lists as arguments and returns a new list containing the common elements between the two lists.

In [83]:
```
def find_common_elements():
    list1=["ajith","palakkad",26,"akhil"]
    list2=["ajith","akshay",26,"Kerala"]

    list3=[]

    for i in list1:
        for j in list2:
            if i==j:
                x=list3.append(i)

    return list3

print("The Common Elements from list 1 and list2 = ",find_common_elements())
```

```
The Common Elements from list 1 and list2 =  ['ajith', 26]
```

4) Develop a function called "capitalize_words" that takes a sentence as a string and returns the sentence with each word capitalized.

In [88]:
```
def capitalize_words(words):
    return words.capitalize()
print("before capitalize")
words=input("Enter The Words = ")
print("After capitalize = ",capitalize_words(words))
```

```
before capitalize
Enter The Words = ajith
After capitalize =  Ajith
```

5) Write a function called "calculate_power" that takes two numbers as arguments, a base and an exponent, and returns the result of raising the base to the exponent.

In [91]:
```
def calculate_power(num1,num2):
    return num1**num2
num1=int(input("Enter number 1 = "))
num2=int(input("Enter Number 2 = "))
print("Power Of the Value = ",calculate_power(num1,num2))
```

```
Enter number 1 = 10
Enter Number 2 = 3
Power Of the Value =  1000
```

6) Develop a function called "count_vowels" that takes a string as an argument and returns the number of vowels (a, e, i, o, u) in the string.

In [118…
```
def count_vowels(words):
    vowels = "aeiou"
    for i in vowels:
        print(i,"=", words.count(i))
words = input("Please type a sentence: ")
count_vowels(words)
```

```
Please type a sentence: ajith krishna palakkad
a = 5
e = 0
i = 2
o = 0
u = 0
```

In [ ]:
```

```