In [6]:
```
# 1. HELLO WORLD!!

print("Hello world!!")
```

```
Hello world!!
```

In [7]:
```
# 2. Addition of two numbers

A=int(input("Enter A :"))
B=int(input("Enter B :"))
C=A+B
print("The addition of the given two number is",C)
```

```
Enter A :5
Enter B :6
The addition of the given two number is 11
```

In [2]:
```
# 3. Swapping of number without temp variable

A=int(input("Enter A :"))
B=int(input("Enter B :"))
A=A+B
B=A-B
A=A-B
print(A)
print(B)
```

```
Enter A :45
Enter B :54
54
45
```

In [3]:
```
# 4. Kilometers to Miles

a=int(input("enter your kilometer value: "))
a=a*0.621371
print("Your Kilometers Value in miles is = ",a,"miles.")
```

```
enter your kilometer value: 58
Your Kilometers Value in miles is =  36.039518 miles.
```

In [14]:
```
# 5. Positive,negative,zero

A=int(input("Enter Your Number :"))
if(A>0):
          print(A,"is positive")
elif(A<0):
          print(A,"is negative")
else:
          print(A,"is zero")
```

```
Enter Your Number :-58
-58 is negative
```

In [53]:
```
# 6. Leap year (checking)

A=int(input("Enter the year:"))
if(A%4==0 and A%100!=0)or(A%400==0):
    print(A,"is a leap year")
```

```
else:
    print(A,"is not a leap year")
```

```
Enter the year:2005
2005 is not a leap year
```

In [47]:

```
# 7. Prime numbers for the given range

a=int(input("Enter your range number:"))
c=0
print("The prime nmubers of the given range are:")
for i in range(2,a):
    c=0
    for j in range(2,i):
        if i%j==0:
            c=1
    if c==0:
        print(i)
```

```
Enter your range number:58
The prime nmubers of the given range are:
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
```

In [46]:

```
# 8. Fibbonacci nmubers

a=0
b=1
n=int(input("Enter the range: "))
print("The fibonacci numbers are: ")
for x in range(1,n-1,1):
    sum=a+b
    print(sum)
    a=b
    b=sum
```

```
Enter the range: 56
The fibonacci numbers are:
1
2
3
5
8
13
21
34
55
89
144
233
377
610
987
1597
2584
4181
6765
10946
17711
28657
46368
75025
121393
196418
317811
514229
832040
1346269
2178309
3524578
5702887
9227465
14930352
24157817
39088169
63245986
102334155
165580141
267914296
433494437
701408733
1134903170
1836311903
2971215073
4807526976
7778742049
12586269025
20365011074
32951280099
53316291173
86267571272
139583862445
```

In [4]:
```
# 9. Sum of n numbers for the given range

y=int(input("enter the sum for n th term: "))
```

```
sum=0
for x in range(1,y+1,1):
    sum+=x
print("sum of n terms",sum)
10
```

```
enter the sum for n th term: 58
sum of n terms 1711
10
```

Out[4]:

In [52]:

```
# 10. Armstrong nnumber

y=int(input("Enter your number:"))
sum=0
temp=y
d=temp%10
e=(temp//10)%10
f=int(temp/100)
sum=(d**3)+(e**3)+(f**3)
if sum==y:
    print("It is an armstrong number")
else:
    print("It is not an armstrong number")
```

```
Enter your number:371
It is an armstrong number
```

In [32]:

```
# 11. show stars(rows)

def show_stars(rows):
    for i in range(1, rows+1):
        print("*"*i)

show_stars(int(input("Enter your number: ")))
```

```
Enter your number: 9
*
**
***
****
*****
******
*******
********
*********
```

In [23]:

```
# 12. New string from old string by removing

def remove_chars(str, n):
    return str[n:]
my_string = input("Enter your string:")
i=int(input("Enter the index number where u want to remove: "))
new_string = remove_chars(my_string, i)
print(new_string)
```

```
Enter your string:dvncvcnjj
Enter the index number where u want to remove: 5
cnjj
```

In [2]:
```
# 13. Numbers divisible by 5

numbers = [47,96,56,22,70,35,53,55,48,75,36]
print("The numbers divisible by 5 from the list are:")
for number in numbers:
    if number % 5 == 0:
        print(number)
```

```
The numbers divisible by 5 from the list are:
70
35
55
75
```

In [34]:
```
# 14. HI Count

str=("Hi,This is my python assignment ,Hi")
substr="Hi"
count=str.count(substr)
print("The count of the substring is : ",count)
```

```
The count of the substring is :  2
```

In [36]:
```
# 15. Number Pattern

n=int(input("Enter the range: "))
for i in range(1, n+1):
    for j in range(i):
        print(i, end=" ")
    print()
```

```
Enter the range: 5
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

In [7]:
```
# 16. Palindrome sequence

def palindrome(n):
    temp=n
    rev=0
    while(n>0):
        d=n%10
        rev=rev*10+d
        n=n//10
    if temp==rev:
        print("it is a palindrome number")
    else:
        print("it is not palindrom number")
n=int(input("Enter your number:"))
palindrome(n)
```

```
Enter your number:858
it is a palindrome number
```

In [5]:
```
# 17. Swapping first and last element

my_list = [15,86,95,76,73,64]
```

```
print("Initial list: ")
print(my_list)
my_list[0], my_list[-1] = my_list[-1], my_list[0]
print("Updated list after swapping:")
print(my_list)
```

```
Initial list:
[15, 86, 95, 76, 73, 64]
Updated list after swapping:
[64, 86, 95, 76, 73, 15]
```

In [21]:
```
# 18. Swapping of two numbers in a list

my_list = [58,75,69,37,25,589]
print("The initial list is:")
print(my_list)
i1 =int(input("Enter i1:"))
i2 =int(input("Enter i2:"))
temp = my_list[i1]
my_list[i1] = my_list[i2]
my_list[i2] = temp
print("The Updated list is:")
print(my_list)
```

```
The initial list is:
[58, 75, 69, 37, 25, 589]
Enter i1:2
Enter i2:3
The Updated list is:
[58, 75, 37, 69, 25, 589]
```

In [3]:
```
# 19. Length of the list

my_list = [46,79,53,75,56,498,53]
print("My list elements: ")
print(my_list)
length = len(my_list)
print("The total length of my list is: ")
print(length)
```

```
My list elements:
[46, 79, 53, 75, 56, 498, 53]
The total length of my list is:
7
```

In [2]:
```
# 20. Maximum of two numbers

a=int(input("Enter A: "))
b=int(input("Enter B: "))
if (a>b):
    print("A is greater")
else:
    print("B is greater")
```

```
Enter A: 8
Enter B: 5
A is greater
```

In [41]:
```
# 21. Minimum of two numbers

a=int(input("Enter A: "))
```

```
b=int(input("Enter B: "))
if (a<b):
    print("A is smaller")
else:
    print("B is smaller")
```

```
Enter A: 5
Enter B: 8
A is smaller
```

In [14]:
```
# 22. Palindrome and Symmetricity of a srting

my_string = input("Enter the string:")
symmetrical = my_string == my_string[::-1]
palindrome = my_string == "".join(reversed(my_string))
if symmetrical:
    print("The string is symmetrical")
else:
    print("The string is not symmetrical")
if palindrome:
    print("The string is a palindrome")
else:
    print("The string is not a palindrome")
```

```
Enter the string:malayalam
The string is symmetrical
The string is a palindrome
```

In [11]:
```
# 23. Reversing of string

my_string = "Python Programming"
print("My initial string is:")
print(my_string)
words = my_string.split()
words.reverse()
new_string = " ".join(words)
print("My reversed string is:")
print(new_string)
```

```
My initial string is:
Python Programming
My reversed string is:
Programming Python
```

In [8]:
```
# 24. Removing of index

my_string = "Hello, World!"
index_to_remove =int(input("Enter the index number to be removed:"))

new_string = my_string[:index_to_remove] + my_string[index_to_remove+1:]

print(new_string)
```

```
Enter the index number to be removed:8
Hello, Wrld!
```

In [7]:
```
# 25. Length of the string

my_string = "This is my program"
string_length = len(my_string)
```

```
print("Length of my string is:")
print(string_length)
```

```
Length of my string is:
18
```

In [25]:
```
# 26. Python code to print even length words in string
print("Enter your string:")
n=input()
s=n.split(" ")
print("The even indexed strings are:")
for i in s:
  #checking the length of words
  if len(i)%2==0:
    print(i)
```

```
Enter your string:
hi there this is me
The even indexed strings are:
hi
this
is
me
```

In [28]:
```
# 27. Python Tuple Size

import sys

# Define a tuple
my_tuple = (19,9,3,'hi','there')

# Get the size of the tuple in bytes
size = sys.getsizeof(my_tuple)

# Print the size in bytes
print(f"The size of the tuple is {size} bytes")
```

```
The size of the tuple is 80 bytes
```

In [7]:
```
# 28. Max and Min elements of a list

import heapq

def find_k_largest_smallest_elements(k, my_tuple):
    # Find the k largest elements using the nlargest function
    largest_elements = heapq.nlargest(k, my_tuple)
    # Find the k smallest elements using the nsmallest function
    smallest_elements = heapq.nsmallest(k, my_tuple)
    return largest_elements, smallest_elements

my_tuple = (55,595,262,962,858,25,2562,52,6)
k=int(input("Enter no. of elements needed:"))
largest, smallest = find_k_largest_smallest_elements(k, my_tuple)
print(f"The {k} largest elements in the tuple are: {largest}")
print(f"The {k} smallest elements in the tuple are: {smallest}")
```

```
Enter no. of elements needed:5
The 5 largest elements in the tuple are: [2562, 962, 858, 595, 262]
The 5 smallest elements in the tuple are: [6, 25, 52, 55, 262]
```

In [6]:
```
# 29. Sum of tuple elements

my_tuple=(16,132,53, 44, 56)
print("Tuple=",my_tuple)
sum_of_tuple = sum(my_tuple)
print("The sum of my tuple elements is:", sum_of_tuple)
```

```
Tuple= (16, 132, 53, 44, 56)
The sum of my tuple elements is: 301
```

In [42]:
```
# 30. Addition of row matrix

matrix = ((18,25,32),(47,55,36),(71,58,99))
print("My row matrix:",matrix)
print("The sum of each row matrix is:")
for row in matrix:
    row_sum = sum(row)
    print(row_sum)
```

```
My row matrix: ((18, 25, 32), (47, 55, 36), (71, 58, 99))
The sum of each row matrix is:
75
138
228
```