In [1]:
```
#print hello world
print("HELLO WORLD!")
```

```
HELLO WORLD!
```

In [4]:
```
#addition of two numbers
a=int(input("Enter the value of a:"))
b=int(input("Enter the value of b:"))
c=a+b
print("The sum is:",c)
```

```
Enter the value of a:12
Enter the value of b:12
The sum is: 24
```

In [5]:
```
#swapping two numbers
a=int(input("Enter the value of a:"))
b=int(input("Enter the value of b:"))
a=a+b
b=a-b
a=a-b
print("The value of a is",a)
print("The value of b is",b)
```

```
Enter the value of a:12
Enter the value of b:13
The value of a is 13
The value of b is 12
```

In [1]:
```
#conversion from kilometre
kilometre=int(input("Enter the value:"))
convertionfactor=0.621371
a=kilometre*convertionfactor
print(a)
```

```
Enter the value:234
145.400814
```

In [2]:
```
#get an input from the user and print whether the number is positive negative or zero
a=int(input("Enter the value of a:"))
if a>0:
    print("positive")
elif a<0:
    print("negative")
else:
    print("zero")
```

```
Enter the value of a:12
positive
```

In [4]:
```
#leap year
year=int((input("Enter an year:")))
if(((year%4==0)and(year%100!=0))or(year%400==0)):
    print("Leap year")
else:
    print("non leap")
```

```
Enter an year:2021
non leap
```

In [6]:
```
#prime number in a range
a=int(input("Enter a value of a:"))

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 a value of a:20
2
3
5
7
11
13
17
19
```

In [1]:
```
#display the fibonaci sequence upto the n-th term
a=0
b=1
n=int(input("Enter the range:"))
print("The fibonaci numbers are:")
for x in range(1,n-1,1):
    sum=a+b
    print(sum)
    a=b
    b=sum
```

```
Enter the range:10
The fibonaci numbers are:
1
2
3
5
8
13
21
34
```

In [2]:
```
#sum of n numbers for the given range
y=int(input("Enter the value:"))
sum=0
for x in range(1,y+1,1):
    sum+=x
print("sum of n numbers:",sum)
```

```
Enter the value:10
sum of n numbers: 55
```

In [3]:
```
#armstrong number
y=int(input("Enter the 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 the number:371
It is an armstrong number
```

In [7]:
```
#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:5
*
**
***
****
*****
```

In [8]:
```
#New string from old strig 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:Encyclopedia
Enter the index number where u want to remove: 5
lopedia
```

In [10]:
```
#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 [12]:
```
#MI Count
str1="Hi,This is my python assignment ,Hippo")
substr="Hi"
count=str.count(substr)
print("The count of the substring is : ",count)
```

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

In [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 [21]:
```
#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:121
It is a palindrome number
```

In [23]:
```
# Swapping first and last element
my_list = [55,90,95,76,73,64]
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:
[55, 90, 95, 76, 73, 64]
Updated list after swapping:
[64, 90, 95, 76, 73, 15]
```

In [24]:
```
#Swapping of two numbers in a list
my_list = [50,75,69,37,25,589]
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:
[50, 75, 69, 37, 25, 589]
Enter i1:3
Enter i2:4
The Updated list is:
[50, 75, 69, 25, 37, 589]
```

In [25]:
```
#Length of the list
my_list = [46,79,53,75,56,490,53]
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, 490, 53]
The total length of my list is:
7
```

In [26]:
```
#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: 20
Enter B: 10
A is greater
```

In [28]:
```
#Minimum of two numbers
a=int(input("Enter A: "))
b=int(input("Enter B: "))
if (a<b):
    print("A is lesser")
else:
    print("B is lesser")
```

```
Enter A: 28
Enter B: 10
B is lesser
```

In [30]:
```
#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:eye
The string is symmetrical
The string is a palindrome
```

In [31]:
```
#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 [32]:
```
#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:4
Heli, World!
```

In [34]:
```
# 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 [37]:
```
#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:
Hello world, this is python programming
The even indexed strings are:
world,
this
is
python
```

In [38]:
```
#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 [44]:
```
#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 = (55,595,262,962,858,25,2582,52,6)
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:3
The 3 largest elements in the tuple are: [2582, 962, 858]
The 3 smallest elements in the tuple are: [6, 25, 52]
```

In [ ]: