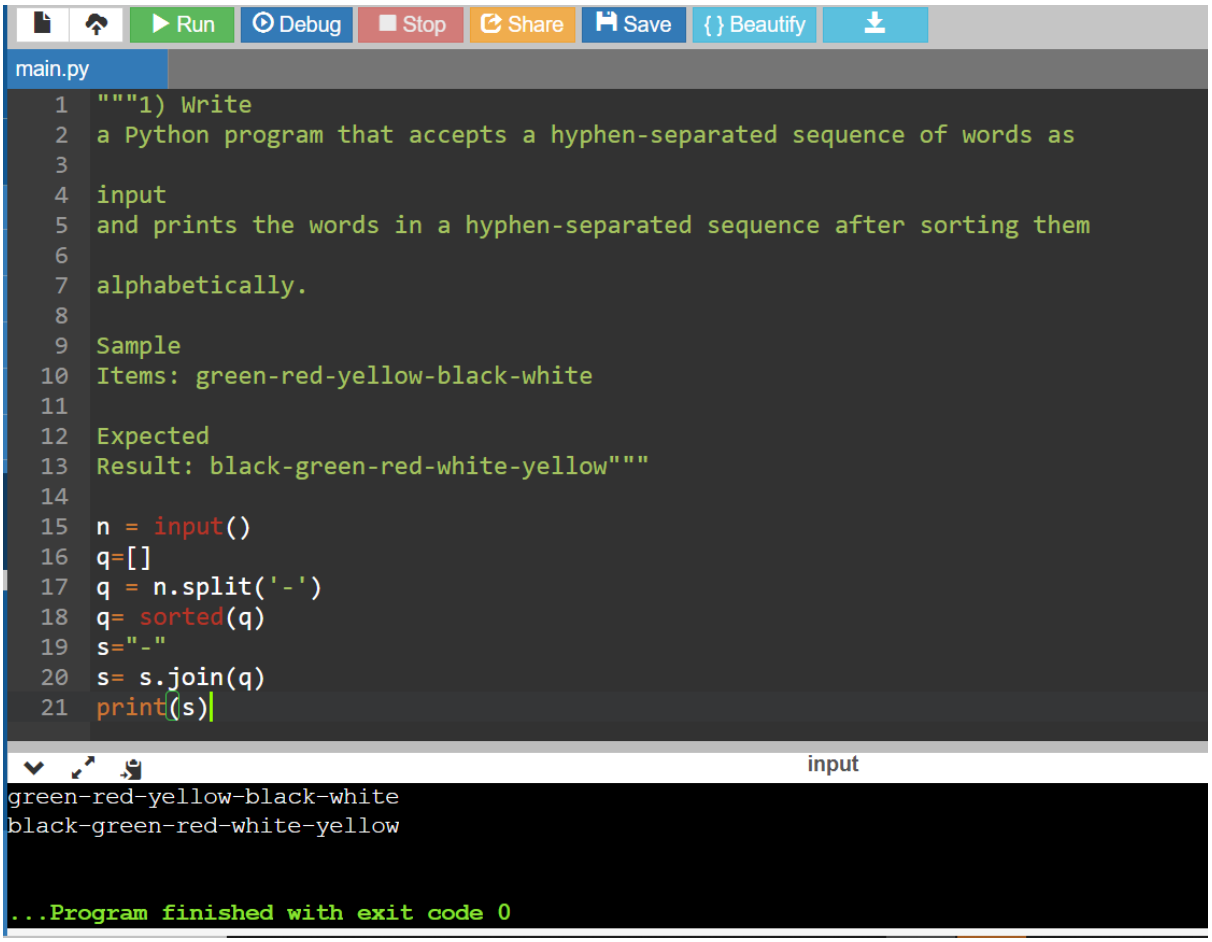
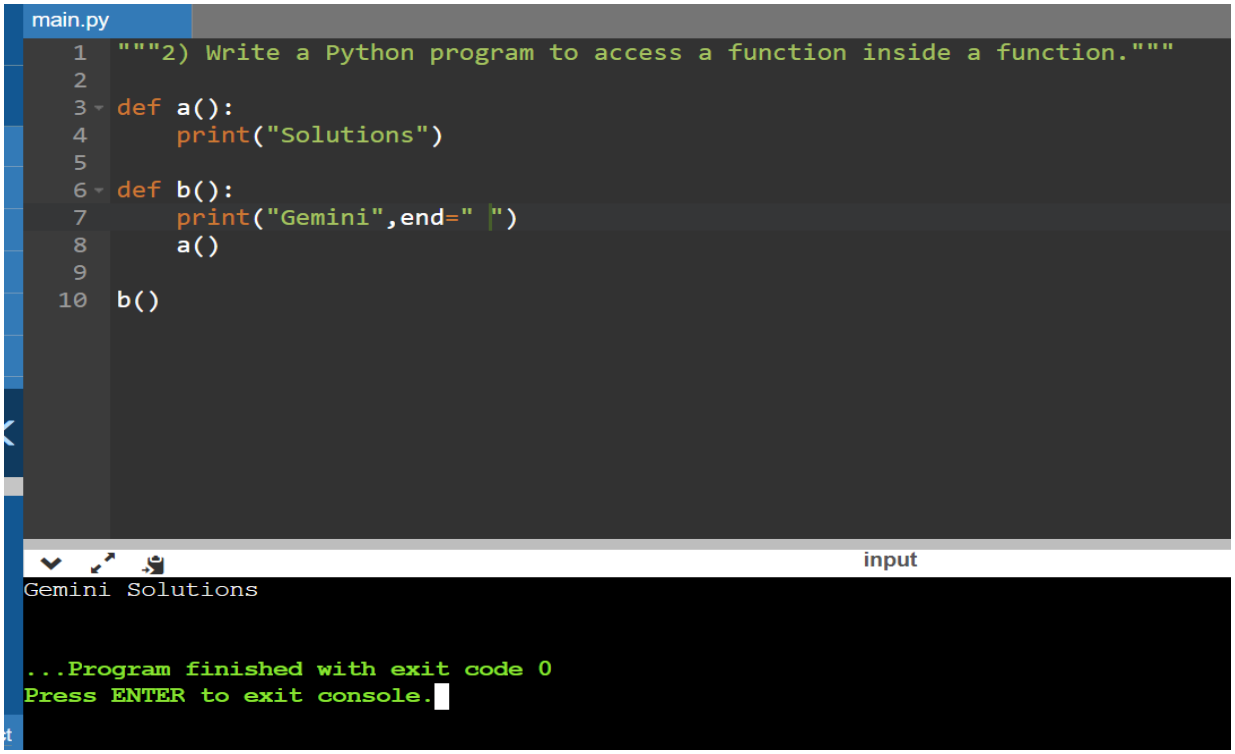
BASIC-PYTHON ASSIGNMENT





main.py

```
"""3) Write
a Python program to reverse a string

Sample
String: "1234abcd"

Expected
Output: "dcba4321" """

n = input()
print(n[::-1])
```

```
1234abcd
dcba4321


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""
4) Write
a Python program to find the first duplicate element in a given array of integers.
Return -1 If there are no such elements.
"""
def a():
    n = list(map(int,input().split()))
    for i in n:
        if(n.count(i)>1):
            print(i)
            break
    else:
        return("-1")

a()
```

input

```
1 2 2 3 3 3 4 1
1


...Program finished with exit code 0
Press ENTER to exit console.
```

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main.py

```
"""5) Write
a Python program to get the number of occurrences of a specified element in an array."""

n = list(map(int,input().split()))
p = str(n)
print("enter specific element from list to find the number of occurrences- "+ p)
a= int(input())
q = n.count(a)
print(str(q) +" is the required value")
```

input

```
1 2 3 3 3 4 4
enter specific element from list to find the number of occurrences- [1, 2, 3, 3, 3, 4, 4]
4
2 is the required value


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""6)
Write a function that computes the volume of a sphere given its radius."""

print("enter radius of sphere")
radius = int(input())
pie= 3.17
a = 4/3*pie*radius**3
print(str(a)+" is the volume of sphere")
```

input

```
enter radius of sphere
3
114.12 is the volume of sphere


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""7)
Write a function that checks whether a number is in a given range (Inclusive of high and low)"""

def a():
    print("enter the low and high range value")
    low = int(input("low range-"))
    high = int(input("high range-"))
    value= int(input("number to check in range"))
    for i in range(low,high+1):
        if(value == i):
            print("exists")
            break
    else:
            print("not exists")

a()
```

input

```
enter the low and high range value
low range-0
high range-5
number to check in range5
exists


...Program finished with exit code 0
```

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main.py

```
"""8)
Write a Python function that accepts a string and calculate the number of upper case letters and
lower case letters.
     Sample
String : 'Hello Mr. Rogers, how are you this fine Tuesday?
Expected Output : No. of Upper case characters : 4,
No. of Lower case Characters : 33"""

def a():
    n = input()
    a=0
    b=0
    for i in n:
        if(i.isupper()==True):
           a=a+1
        if(i.islower()==True):
            b += 1
    print("No. of Upper case characters : "+ str(a) + ",")
    print("No. of Lower case Characters : "+ str(b) )
a()
```

input

```
Hello Gemini, happy to have you!
No. of Upper case characters : 2,
No. of Lower case Characters : 23
```

main.py

```
"""9)
  Write a Python function that takes a list and returns a new list with unique elements of the first list.

    Sample
List : [1,1,1,1,2,2,3,3,3,3,4,5],

    Unique
List : [1, 2, 3, 4, 5]"""

def a():

    lis = list(map(int,input().split()))
    print(list(set(lis)))

a()
```

input

```
1 1 1 1 2 2 3 3 3 3 4 5
[1, 2, 3, 4, 5]


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""10)
  Write a Python function to multiply all the numbers in a list.**\n",
    Sample
List : [1, 2, 3, -4],

    Expected
Output : -24" """

def a():
    n = list(map(int,input().split()))
    a= 1
    for i in n:
        a = a*i
    print(a)
a()
```

input

```
1 2 3 -4
-24


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""11)
Write a Python function that checks whether a passed string is palindrome or not.
A palindrome is word, phrase, or sequence that reads the same backward as forward, e.g madam or nurses run.""

def a():
    n = input()
    n = n.replace(" ","")
    if(n == n[::-1]):
        print("palindrome")
    else:
        print("not a palindrome")
a()
```

input

```
nurses run
palindrome


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""12)
Write a Python function to check whether a string is pangram or not.

    Note
: Pangrams are words or sentences containing every letter of the alphabet at least once."""

import string
def a():
    n = input()
    n = n.lower()
    alphabet = set(string.ascii_lowercase)
    for char in alphabet:
        if char not in n:
            return False

    return True

if(a() == True):
    print("Pangrams")
else:
    print("False")
```

input

```
the quick brown fox jumps over the lazy dog
Pangrams


...Program finished with exit code 0
```

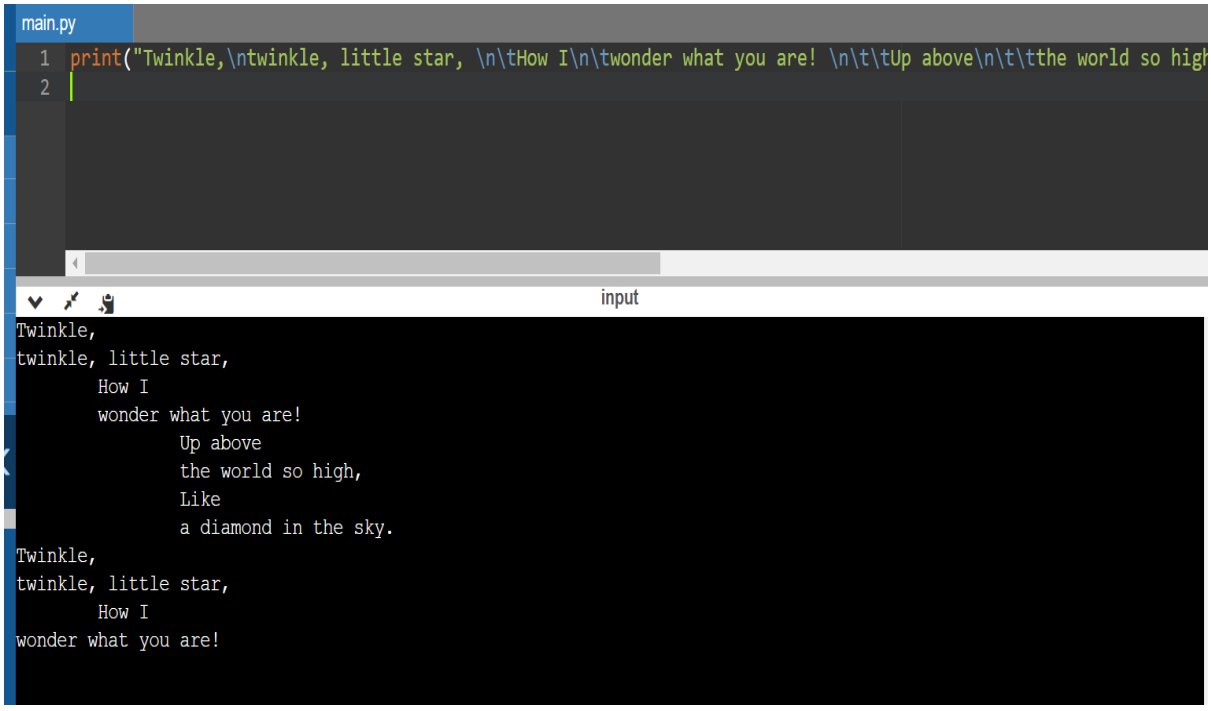
13) Write a Python program to print the following string in a specific format (see the
output).
Sample String : "Twinkle, twinkle, little star, How I wonder what you are! Up
above the world so high, Like a diamond in the sky. Twinkle, twinkle, little star,
How I wonder what you are"
Output :

```
Twinkle,
twinkle, little star,
      How I
      wonder what you are!
            Up above
            the world so high,
             Like
             a diamond in the sky.
Twinkle,
twinkle, little star,
      How I
wonder what you are
```

CODE:

```
print("Twinkle,\ntwinkle, little star, \n\tHow I\n\twonder what you are! \n\t\tUp above\n\t\tthe world so high,\n\t\tLike\n\t\ta diamond in the sky. \nTwinkle,\ntwinkle, little star, \n\tHow I\nwonder what you are!")
```

output-



```
"""
14)
Write a Python program to accept a filename from the user and print the extension of that."""

a = input("Enter the Filename ")
f_extns = a.split(".")
print ("The extension of  file is : " + (f_extns[-1]))

```

input

```
Enter the Filename a.c
The extension of  file is : c


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""15)
Write a Python program that accepts an integer (n) and computes the value of

n+nn+nnn

Sample
value of n is 5

Expected
Result : 615"""

n = int(input())
a = str(n)+str(n)
b =  str(n)+str(n) + str(n)
a = int(a)
b = int(b)
print(a+b+n)
```

input

```
5
615


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""16)
Write a Python program to check whether a specified val
Test
Data :
3 -> [1, 5, 8, 3] : True
-1 ->[1, 5, 8, 3] : False"""

n = list(map(int,input().split()))
a = int(input())
if( a in n):
    print("True")
else:
    print("False")
```

input

```
1 5 8 3
8
True


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""17)
Write a Python program to print all even numbers from a given numbers list in the same order
and stop the printing if any numbers that come after 237 in the sequence.

Sample
numbers list :
numbers= [386,462, 47, 418, 907, 344, 236, 375, 823, 566, 597, 978, 328, 615, 953, 345, 399, 162, 758, 219,
892, 894, 767, 553, 81, 379, 843, 831, 445, 742, 717,958,743, 527]"""


numbers= [386,462, 47, 418, 907, 344, 236, 375, 823, 566, 597, 978, 328, 615, 953, 345, 399, 162, 758, 219,
918, 237, 412, 566, 826, 248, 866, 950, 626, 949, 687,217,815, 67, 104, 58, 512, 24,
892, 894, 767, 553, 81, 379, 843, 831, 445, 742, 717,958,743, 527]

for i in numbers:
    if(i%2==0 and i != 237):
        print(i,end=" ")
    if(i==237):
        break

```

input

```
386 462 418 344 236 566 978 328 162 758 918

...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""18)
Write a Python program that will return true if the two given integer values are equal or their
sum or difference is 5."""

def a(num1, num2):
    if(num2==num1):
        return True
    elif(num2+num1==5 or num1-num2==5):
        return True
    else:
        return False
num1 = int(input())
num2 = int(input())
print(a(num1,num2))


```

input

```
10
5
True


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""19)
Write a Python program to display your details like name, age, address in three different lines."""


name = input()
age = int(input())
address = input()
print("Hello, Iam " + name)
print("Iam " + str(age) + " years old")
print("I live in " + address)
```

input

```
Puja
22
BenzCIRcle
Hello, Iam Puja
Iam 22 years old
I live in BenzCIRcle
```

main.py

```
"""20)
Write a Python program to solve (x + y) * (x + y)."""

x = int(input())
y = int(input())

print( (x+y) * (x+y) )
```

input

```
5
2
49


...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
"""21)
Write a Python program to print out a set containing all the colors from color_list_1 which are not present
in color_list_2.
Test
Data :
color_list_1= set(["White", "Black", "Red"])
color_list_2= set(["Red", "Green"])
Expected
Output : {'Black','White'}"""

color_list_1= set(["White", "Black", "Red"])
color_list_2= set(["Red", "Green"])
print(color_list_1.difference(color_list_2))
```

input

```
{'Black', 'White'}


...Program finished with exit code 0
Press ENTER to exit console.
```