```
#guido
#1991
#general-purpose , high level , ai, ml, rapid web developement


i=1

while i<=10:
    print(i)
    i+=1

print("------------")

for i in range(1,10+1):
    print(i)


print("-----------")

str1 = input("Enter String : ") #mihir

for i in str1:
    print(i)
```

```
#list

list1 = [1,2,3,3,4,5]  #mutable -  we can change its value... / ordered / [] / one kind of array

for i in list1:
    print(i)


print("List Is ",list1)

'''
#specified Position....
list1.insert(2,7)
print(list1)

list1.pop()
print(list1)
#print(list1.clear())
copy = list1.copy()
print(copy)

print(list1.count(3))
'''
print("------")
ls1 = [1,2,3]
ls2 = [4,5,6,7]
```

```
ls1.extend(ls2)
print(ls1)

print(ls1.index(3))

fruits = ['apple','banana','cherry']
fruits.reverse()
print(fruits)

fruits.sort()
print(fruits)

fruits.remove('banana')
print(fruits)
'''
#tuple

tuple1= (1,2,3,4,5) # immutable - we can not change its value.... / Ordered /()
print(tuple1)
list2 = list(tuple1)
list2.append(7)
tuple2 = tuple(list2)
print(tuple2)

#set : unordered , {}

set1 = {'apple','banana','cherry'}
print(set1)


#dectionary : key-value / object / key / {}

dict1 = {
      'id': 101,
      'name': 'mihir'
   }

print(dict1['name'])

'''
```

```
list1 = [22,45,67,12,10]

n = len(list1)

for i in range(0,n):
   for j in range(i+1,n):
      if list1[i] > list1[j]:
         list1[i],list1[j] = list1[j],list1[i]   #Multiple Assignment
```

```
print(list1)
```

```
#Reverse ::

def reverse(str):
    rev = ""
    for i in str:
        rev = i + rev
    return rev


s1 = input("Enter String : ")
output = reverse(s1)
print(output)
```

```
#Palindrome...

def is_palid(str1):
    rev = ""
    for i in str1:
        rev = i + rev

    if str1 == rev:
        return True
    else:
        return False


s1=input("Enter A String : ")
output = is_palid(s1)

if output:
    print("Palindrome")
else:
    print("Not")
```

```
# oodg gdoo
#listen slient
#anagrams word

def anagrams(str1,str2):
    print(sorted(str1))
    print(sorted(str2))
    if len(str1) == len(str2):
        if sorted(str1) == sorted(str2):
            return True
        else:
            return False
```

```
s1 = input("Enter S1 : ")
s2 = input("Enter S2 : ")

output = anagrams(s1,s2)

if output:
   print("True")
else:
   print("False")
```

```
class demo:
   def __init__(self):
      print("Hello")

   def fun1(self,name,age):
      self.name = name
      self.age = age

   def fun2(self):
      print(self.name)
      print(self.age)


d = demo()
d.fun1("Mihir",20)
d.fun2()
```

```
class demo1:
   def fun1(self):
      print("This Is Demo 1 ...")

class demo2(demo1):
   def fun2(self):
      print("This Is Demo 2 ...")

class demo3(demo1):
   def fun3(self):
      print("This Is Demo 3 ...")


d2 = demo2()
d3 = demo3()

d2.fun1()
d2.fun2()


d3.fun1()
d3.fun3()
```

```
def upper(str):
    res = ""
    for i in str:
        if 'a' <= i  and 'z' >= i:
            res += chr(ord(i) - 32)
        elif 'A' <= i  and 'Z' >= i:
            res += chr(ord(i) + 32)
        else:
            res += i
    return res


s1 = input("Enter String : ")
output = upper(s1)
print(output)
```

```
def cnt_char(str): #mihir  #swiss
    dict1 = {}
    for ch in str: #m i h i r
        if ch in dict1:
            dict1[ch] += 1
        else:
            dict1[ch] = 1
    #return dict1

    for i in str: # m i h i r
        if dict1[i] == 1:
            return i

s1 = input("Enter String : ")
output  = cnt_char(s1)

print(output)
```