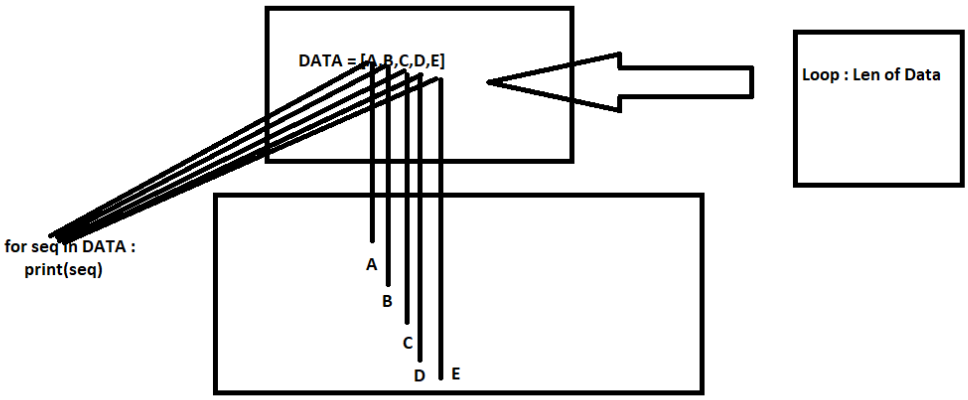
It Is Used For Sequential Traversal

In [ ]:
```
for sequence in Data:
    statements

Here :
         Sequnece => Pointer
         Data     => Iterable (Container : List , Tuple , Set , Dict.)
```

Syntax

In [ ]:
```
for Sequence in iterable:
    Statements
```



In [1]:
```
name = "ALLEN"
```

In [2]:
```
name[0]
```

Out[2]:
```
'A'
```

In [3]:
```
for k in name:
    print("Char Is :",k)
```

```
Char Is : A
Char Is : L
Char Is : L
Char Is : E
Char Is : N
```

In [3]:
```
stud = ["Mike","Luke","Jack","Peter","Finn"]
for name in stud:
    print(f"Stud Name Is : {name}")
```

```
Stud Name Is : Mike
Stud Name Is : Luke
Stud Name Is : Jack
Stud Name Is : Peter
Stud Name Is : Finn
```

In [4]:
```
a = 0
stud = ["Mike","Luke","Jack","Peter","Finn"]
for name in stud:
    print(a,f" => Stud Name Is : {name}")
    a+=1
```

```
0  => Stud Name Is : Mike
1  => Stud Name Is : Luke
2  => Stud Name Is : Jack
3  => Stud Name Is : Peter
4  => Stud Name Is : Finn
```

Char Value With Index Num

In [4]:
```
a = 0
for k in name:
    print(a," => Char Is :",k)
    a+=1
```

```
0  => Char Is : A
1  => Char Is : L
2  => Char Is : L
3  => Char Is : E
4  => Char Is : N
```

Gives Colors For Chars

In [5]:
```
from colorama import *
```

In [6]:
```
a = 0
for k in name:
    print(a,Fore.GREEN+" => Char Is :",k,Style.RESET_ALL)
    a+=1
```

```
0  => Char Is : F
1  => Char Is : i
2  => Char Is : n
3  => Char Is : n
```

In [7]:
```
import simple_colors as color
```

Give Green And Red Color For Even And Odd Pos Of Stud Data

In [12]:
```
a = 0
for k in stud:
    if a%2==0:
        print(a,color.green(f" => Stud Is : {k}",'bold'))
    else:
        print(a,color.red(f" => Stud Is : {k}",'bold'))
    a+=1
```

```
0  => Stud Is : Mike
1  => Stud Is : Luke
2  => Stud Is : Jack
3  => Stud Is : Peter
4  => Stud Is : Finn
```

In [13]:
```
msg = input("Enter Msg :")
print()
for k in msg:
    print(k)
```

```
Enter Msg :We Are Learning Python.

W
e

A
r
e

L
e
a
r
n
i
n
g

P
y
t
h
o
n
.
```

In [14]:
```
msg = input("Enter Msg :")
print()
for k in msg:
    print(k,end="")
```

```
Enter Msg :We Are Learning Python.

We Are Learning Python.
```

In [16]:
```
msg = input("Enter Msg :")
print()
for k in msg:
    print(k,end=" ")
```

```
Enter Msg :We Are Learning Python.

W e   A r e   L e a r n i n g   P y t h o n .
```

In [11]:
```
msg = input("Enter Msg :")
print()
for k in msg:
    print(k,end= " ")
```

```
Enter Msg :Hello Mike

H e l l o   M i k e
```

Delay Time

Use : time Module

In [18]:
```
import time
```

Dealy : time.sleep(num(sec))

In [19]:
```
print("Data Is Coming In 10 Seconds....")
time.sleep(10)
print(stud)
```

```
Data Is Coming In 10 Seconds....
['Mike', 'Luke', 'Jack', 'Peter', 'Finn']
```

In [20]:
```
msg = input("Enter Msg :")
print()
for k in msg:
    print(k,end= " ")
    time.sleep(0.5)
```

```
Enter Msg :We Are Learning Python.

W e   A r e   L e a r n i n g   P y t h o n .
```

In [21]:
```
msg = input("Enter Msg :")
print()
for k in msg:
    print(Fore.GREEN+k,end= " ")
    time.sleep(0.5)
```

```
Enter Msg :We Are Learning Python.

W e   A r e   L e a r n i n g   P y t h o n .
```

Give Green And Red Color At Even And Odd Index Num With Dealy of Time

In [23]:
```
msg = input("Enter Msg :")
print()
for k in range(len(msg)):
    print(f"Index Num Is : {k}")
```

```
Enter Msg :We Are Learning Python.

Index Num Is : 0
Index Num Is : 1
Index Num Is : 2
Index Num Is : 3
Index Num Is : 4
Index Num Is : 5
Index Num Is : 6
Index Num Is : 7
Index Num Is : 8
Index Num Is : 9
Index Num Is : 10
Index Num Is : 11
Index Num Is : 12
Index Num Is : 13
Index Num Is : 14
Index Num Is : 15
Index Num Is : 16
Index Num Is : 17
Index Num Is : 18
Index Num Is : 19
Index Num Is : 20
Index Num Is : 21
Index Num Is : 22
```

In [25]:

```
msg = input("Enter Msg :")
print()
for k in range(len(msg)):
    if k%2==0:
        print(k,color.green(f" => Char Is : {msg[k]}",'bold'))
    else:
        print(k,color.red(f" => Char Is : {msg[k]}",'bold'))
    time.sleep(0.5)
```

```
Enter Msg :We Are Learning Python.

0  => Char Is : W
1  => Char Is : e
2  => Char Is :
3  => Char Is : A
4  => Char Is : r
5  => Char Is : e
6  => Char Is :
7  => Char Is : L
8  => Char Is : e
9  => Char Is : a
10  => Char Is : r
11  => Char Is : n
12  => Char Is : i
13  => Char Is : n
14  => Char Is : g
15  => Char Is :
16  => Char Is : P
17  => Char Is : y
18  => Char Is : t
19  => Char Is : h
20  => Char Is : o
21  => Char Is : n
22  => Char Is : .
```

In [28]:
```
msg = input("Enter Msg :")
print()
for k in range(len(msg)):
    if k%2==0:
        print(color.green(f"{msg[k]}",'bold'),end="")
    else:
        print(color.red(f"{msg[k]}",'bold'),end="")
    time.sleep(0.5)
```

```
Enter Msg :We Are Learning Python.

We Are Learning Python.
```

Task1 : Space => Remove
Task2 : Space => Black

In [32]:
```
a = 0
msg = "Mike And Jack"
for k in msg:
    if k==" ":
        print(a," => Space Is :",k)
    a+=1
```

```
4  => Space Is :
8  => Space Is :
```

In [38]:
```
msg = "Mike And Jack"
for k in msg:
    if k==" ":
        msg= msg.replace(k,"😀")
print("Msg Is :",msg)
```

```
Msg Is : Mike😀And😀Jack
```

Remove Space

In [39]:
```
msg = "Mike And Jack"
for k in msg:
    if k==" ":
        msg= msg.replace(k,"")
print("Msg Is :",msg)
```

```
Msg Is : MikeAndJack
```

In [40]:
```
range(10)
```

Out[40]:
```
range(0, 10)
```

In [41]:
```
type(range)
```

Out[41]:
```
type
```

In [42]:
```
type(range(10))
```

Out[42]:
```
range
```

In [19]:
```
list(range(10))
```

Out[19]:
```
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

In [20]:
```
list(range(2,21,2))
```

Out[20]:
```
[2, 4, 6, 8, 10, 12, 14, 16, 18, 20]
```

In [21]:
```
range(len(msg))
```

Out[21]:
```
range(0, 21)
```

In [43]:
```
name = "Finn Allen"
```

In [44]:
```
list(range(len(name)))
```

Out[44]:
```
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

Create A Char Data According To Given Range

In [46]:
```
range_data = range(int(input("Enter Range To Create Data :")))
range_data
```

```
Enter Range To Create Data :25
```

Out[46]:
```
range(0, 25)
```

In [50]:
```
def generate_char_data(start_index, end_index):
    char_data = []
    for index in range(start_index, end_index + 1):
        char_data.append(chr(index))
    return char_data


start_index = 65
end_index = 90

result = generate_char_data(start_index, end_index)
print(result)
```

```
['A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O', 'P', 'Q
', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z']
```

In [53]:
```
def generate_char_data(start_index, end_index):
    char_data = []
    for index in range(start_index, end_index + 1):
        char_data.append(chr(index))
    return char_data


start_index = int(input("Enter Start Num :"))
end_index = int(input("\nEnter Stop Num :"))

result = generate_char_data(start_index, end_index)
print(result)
```

```
Enter Start Num :97

Enter Stop Num :122
['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k', 'l', 'm', 'n', 'o', 'p', 'q
', 'r', 's', 't', 'u', 'v', 'w', 'x', 'y', 'z']
```

In [54]:
```
alpha = ['A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O',
```

List Convert Into String

In [59]:
```
space = " "
space.join(alpha)
```

Out[59]:
```
'A B C D E F G H I J K L M N O P Q R S T U V W X Y Z'
```

Skip Value At Odd Index Num

In [49]:
```
stud = ['Mike', 'Luke', 'Jack', 'Peter', 'Finn','Nile','Allen','Jacob']
stud
```

Out[49]:
```
['Mike', 'Luke', 'Jack', 'Peter', 'Finn', 'Nile', 'Allen', 'Jacob']
```

In [60]:
```
for k in range(len(stud)):
    if k % 2 ==0:
        print(k," => Stud Is :",stud[k])
```

```
0  => Stud Is : Mike
2  => Stud Is : Jack
4  => Stud Is : Finn
6  => Stud Is : Allen
```

In [61]:
```
def generate_char_data(start_index, end_index):
    char_data = []
    for index in range(start_index, end_index + 1):
        char_data.append(chr(index))
    return char_data


start_index = int(input("Enter Start Num :"))
end_index = int(input("\nEnter Stop Num :"))

result = generate_char_data(start_index, end_index)
print(result)
```

```
Enter Start Num :1

Enter Stop Num :250
['\x01', '\x02', '\x03', '\x04', '\x05', '\x06', '\x07', '\x08', '\t', '\n', '\x0b
', '\x0c', '\r', '\x0e', '\x0f', '\x10', '\x11', '\x12', '\x13', '\x14', '\x15', '\
x16', '\x17', '\x18', '\x19', '\x1a', '\x1b', '\x1c', '\x1d', '\x1e', '\x1f', ' ',
'!', '"', '#', '$', '%', '&', "'", '(', ')', '*', '+', ',', '-', '.', '/', '0', '1
', '2', '3', '4', '5', '6', '7', '8', '9', ':', ';', '<', '=', '>', '?', '@', 'A',
'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O', 'P', 'Q', 'R
', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z', '[', '\\', ']', '^', '_', '`', 'a', 'b',
'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k', 'l', 'm', 'n', 'o', 'p', 'q', 'r', 's
', 't', 'u', 'v', 'w', 'x', 'y', 'z', '{', '|', '}', '~', '\x7f', '\x80', '\x81',
'\x82', '\x83', '\x84', '\x85', '\x86', '\x87', '\x88', '\x89', '\x8a', '\x8b', '\x
8c', '\x8d', '\x8e', '\x8f', '\x90', '\x91', '\x92', '\x93', '\x94', '\x95', '\x96
', '\x97', '\x98', '\x99', '\x9a', '\x9b', '\x9c', '\x9d', '\x9e', '\x9f', '\xa0',
'¡', '¢', '£', '¤', '¥', '¦', '§', '¨', '©', 'ª', '«', '¬', '\xad', '®', '¯', '°',
'±', '²', '³', '´', 'µ', '¶', '·', '¸', '¹', 'º', '»', '¼', '½', '¾', '¿', 'À', 'Á
', 'Â', 'Ã', 'Ä', 'Å', 'Æ', 'Ç', 'È', 'É', 'Ê', 'Ë', 'Ì', 'Í', 'Î', 'Ï', 'Ð', 'Ñ',
'Ò', 'Ó', 'Ô', 'Õ', 'Ö', '×', 'Ø', 'Ù', 'Ú', 'Û', 'Ü', 'Ý', 'Þ', 'ß', 'à', 'á', 'â
', 'ã', 'ä', 'å', 'æ', 'ç', 'è', 'é', 'ê', 'ë', 'ì', 'í', 'î', 'ï', 'ð', 'ñ', 'ò',
'ó', 'ô', 'õ', 'ö', '÷', 'ø', 'ù', 'ú']
```

Delete Value At Odd Pos of Data Permanamt

In [74]:
```
data=["Hello","Hye","BYE","Good bye"]
for k in range(len(data)):
    if k%2==0:
        print(k,data[k])
    else:
        del(data[k])
print("\nUpdated Data Is :",data)
```

```
0 Hello
2 Good bye
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
Input In [74], in <cell line: 2>()
      4         print(k,data[k])
      5     else:
----> 6         del(data[k])
      7 print("\nUpdated Data Is :",data)

IndexError: list assignment index out of range
```

In [75]:
```
data
```

Out[75]:
```
['Hello', 'BYE', 'Good bye']
```

In [67]:
```
data=["Hello","Hye","BYE","Good bye"]
for k in range(len(data)):
    if k%2==0:
        print(k,data[k])
    else:
        print(color.red(f"Odd Index Is : {k} ==> Value Is : {data[k]}"))
print("\nUpdated Data Is :",data)
```

```
0 Hello
Odd Index Is : 1 ==> Value Is : Hye
2 BYE
Odd Index Is : 3 ==> Value Is : Good bye

Updated Data Is : ['Hello', 'Hye', 'BYE', 'Good bye']
```

In [73]:
```
data=["Hello","Hye","BYE","Good bye"]
for k in range(len(data)):
    if k%2==0:
        print(k,data[k])
    else:
#         print(color.red(f"Odd Index Is : {k} ==> Value Is : {data[k]}"))
#         data.pop(k)
          print(k)
print("\nUpdated Data Is :",data)
```

```
0 Hello
1
2 BYE
3

Updated Data Is : ['Hello', 'Hye', 'BYE', 'Good bye']
```

In [69]:
```
ab = ["Mike","Sean"]
del(ab[0])
ab
```

Out[69]:
```
['Sean']
```

In [64]:
```
stud=["Mike","Luke","Jack","Peter","Finn"]
for a in range(len(stud)):
    if a%2 != 0:
        stud.remove(stud[a])
print(stud)
```

```
['Mike', 'Jack', 'Peter']
```

Fetch The Data

In [76]:
```
data = ["Python","Java","C","C++","HTML"]
```

In [77]:
```
filter_data = input("Enter The Filter Data :")
for k in data:
    if k==filter_data:
        print("\nData Found..")
```

```
Enter The Filter Data :Python

Data Found..
```

In [78]:
```
filter_data = input("Enter The Filter Data :")
for k in data:
    if k==filter_data:
        print("\nData Found..")
    else:
        print("\nPls Try Again.")
```

```
Enter The Filter Data :Python

Data Found..

Pls Try Again.

Pls Try Again.

Pls Try Again.

Pls Try Again.


     Result Loop : Break
```

Break Statement

In [79]:
```
filter_data = input("Enter The Filter Data :")
for k in data:
    if k==filter_data:
        print("\nData Found..")
        break
    else:
        print("\nPls Try Again.")
        break
```

```
Enter The Filter Data :Python

Data Found..
```

In [80]:
```
filter_data = input("Enter The Filter Data :")
for k in data:
    if k==filter_data:
        print("\nData Found..")
        break
    else:
        print("\nPls Try Again.")
        break
```

```
Enter The Filter Data :MySQL

Pls Try Again.
```

In [81]:
```
alpha = ['A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O',
alpha = alpha[::2]
print("Data with values at odd indices deleted:", alpha)
```

```
Data with values at odd indices deleted: ['A', 'C', 'E', 'G', 'I', 'K', 'M', 'O', '
Q', 'S', 'U', 'W', 'Y']
```

In [84]:
```
msg = "I AM LEARNING PYTHON.MIKE IS GOING TO DELHI."
char = input("Enter Char :")
for k in msg:
    if k ==char:
        print("")
        print(char,"Is :",msg.count(char))
        break
    else:
        print("\nNo Char Found..")
        break
```

```
Enter Char :Z

No Char Found..
```

In [87]:
```
msg = "I AM LEARNING PYTHON.MIKE IS GOING TO DELHI."
char = input("Enter Char :")
for k in msg:
    if k==char:
        print("")
        print(char,"Is :",msg.count(char))
        break
    else:
        print("\nNo Char Found..")
        break
```

```
Enter Char :I

I Is : 6
```

In [88]:
```
msg.count("A")
```

Out[88]:
```
2
```

In [102…
```
data = input("Enter Message : ")
char = input("Enter character to be counted : ")
count = 0

for i in data:
    if i == char:
        count = count + 1
print(f"Count of {char}  is : ",count)
```

```
Enter Message : I AM LEARNING PYTHON.MIKE IS GOING TO DELHI
Enter character to be counted : A
Count of A  is :  2
```

Count Perticular Chars

In [105…
```
data = input("Enter Message : ")
char = input("Enter character to be counted : ")
count = 0

for i in data:
    if i == char:
        count = count + 1
print(f"Count of {char}  is : ",count)
```

```
Enter Message : Sean And Mike.Mike And Jack.
Enter character to be counted : M
Count of M  is :  2
```

Count The Word

In [108…
```
data = input("Enter Message : ").split()
char = input("Enter character to be counted : ")
count = 0

for i in data:
    if i == char:
        count = count + 1
print(f"Count of {char}  is : ",count)
```

```
Enter Message : Sean And Mike Mike And Jack.
Enter character to be counted : Mike
Count of Mike  is :  2
```

In [109…
```
data
```

Out[109]:
```
['Sean', 'And', 'Mike', 'Mike', 'And', 'Jack.']
```

In [22]:
```
msg
```

Out[22]:
```
['Sean', 'Is', 'Coming.', 'Sean', 'Is', 'Learning', 'Python.']
```

In [1]:
```
name = ["Sean","Jack","Luke","Mike","Finn"]
age =   [15,16,15,16,10]
```

In [110…
```
name = ["Sean", "Jack", "Luke", "Mike", "Finn"]
age = [15, 16, 15, 16, 10]
dic = dict(zip(name, age))
print(dic)
```

```
{'Sean': 15, 'Jack': 16, 'Luke': 15, 'Mike': 16, 'Finn': 10}
```

In [111…
```
name = ["Sean","Jack","Luke","Mike","Finn"]
age =   [15,16,15,16,10]
data={}
i=0
for key in name:
    data[key]=age[i]
    i+=1
print(data)
```

```
{'Sean': 15, 'Jack': 16, 'Luke': 15, 'Mike': 16, 'Finn': 10}
```

==> Make Statements From 65 To 122 Number According To User.

==> Find Special Char , Number , Char ,Bool And Emoji From Given Data.

```
Data = "Sean@gmail.comMike Is 😀.Password Is
25166@##.Okay!!100True"
```

==> Encode A Msg Using Input Function With Options :

```
Decode By : Key And Passowrd
```

==> Make A Program Using While And For Loop.

==> Make A Program To Find Any Word From HTML And Text File.

In [112…
```
data = ["Mike",'26.56','True',"5j"]
for k in data:
    print(k," -> Type Is :",type(k))
```

```
Mike  -> Type Is : <class 'str'>
26.56  -> Type Is : <class 'str'>
True  -> Type Is : <class 'str'>
5j  -> Type Is : <class 'str'>
```

In [117…
```
data = ['26.56','True',"5j"]
for k in data:
    print(k," -> Type Is :",type(eval(k)))
```

```
26.56  -> Type Is : <class 'float'>
True  -> Type Is : <class 'bool'>
5j  -> Type Is : <class 'complex'>
```

In [118…
```
data = "Sean@gmail.comMike Is 😀.Password Is 25166@##.Okay!!100True"

special_char_count = 0
number_count = 0
char_count = 0
bool_count = 0
emoji_count = 0


def is_emoji(char):
    emoji_range = (0x1F600, 0x1F64F)
    return ord(char) in range(*emoji_range)
for char in data:
    if char.isalnum():
        if char.isalpha():
            char_count += 1
        else:
            number_count += 1
    elif char in "!@#$%^&*()_-+=<>?/,.:;{}[]|\\":
        special_char_count += 1
    elif char == "True" or char == "False":
        bool_count += 1
    elif is_emoji(char):
        emoji_count += 1
print("Special Characters:", special_char_count)
print("Numbers:", number_count)
print("Characters:", char_count)
print("Booleans:", bool_count)
print("Emojis:", emoji_count)
```

```
Special Characters: 9
Numbers: 8
Characters: 36
Booleans: 0
Emojis: 1
```

In [120…
```
name = ["Sean","Jack","Luke","Mike","Finn"]
age =   [15,16,15,16,10]
print(name,age,sep="\n------------------\n")
```

```
['Sean', 'Jack', 'Luke', 'Mike', 'Finn']
------------------
[15, 16, 15, 16, 10]
```

Create Data WIth Name And Age

In [25]:
```
for k in name:
    print("Stud Is :",k)
print("\n-----------------\n")
for k in age:
    print("Age Is :",k)
```

```
Stud Is : Sean
Stud Is : Jack
Stud Is : Luke
Stud Is : Mike
Stud Is : Finn

-----------------

Age Is : 15
Age Is : 16
Age Is : 15
Age Is : 16
Age Is : 10
```

In [2]:
```
for k in name:
    for j in age :
        print(k,"Is",j,"Years Old.")
```

```
Sean Is 15 Years Old.
Sean Is 16 Years Old.
Sean Is 15 Years Old.
Sean Is 16 Years Old.
Sean Is 10 Years Old.
Jack Is 15 Years Old.
Jack Is 16 Years Old.
Jack Is 15 Years Old.
Jack Is 16 Years Old.
Jack Is 10 Years Old.
Luke Is 15 Years Old.
Luke Is 16 Years Old.
Luke Is 15 Years Old.
Luke Is 16 Years Old.
Luke Is 10 Years Old.
Mike Is 15 Years Old.
Mike Is 16 Years Old.
Mike Is 15 Years Old.
Mike Is 16 Years Old.
Mike Is 10 Years Old.
Finn Is 15 Years Old.
Finn Is 16 Years Old.
Finn Is 15 Years Old.
Finn Is 16 Years Old.
Finn Is 10 Years Old.
```

In [4]:
```
for k in name:
    for j in age :
        print(k,"Is",j,"Years Old.")
        break
```

```
Sean Is 15 Years Old.
Jack Is 15 Years Old.
Luke Is 15 Years Old.
Mike Is 15 Years Old.
Finn Is 15 Years Old.
```

In [121…
```
a = 0
for k in name:
    for j in age :
        print(a,"=>",k,"Is",j,"Years Old.")
        a+=1
        break
```

```
0 => Sean Is 15 Years Old.
1 => Jack Is 15 Years Old.
2 => Luke Is 15 Years Old.
3 => Mike Is 15 Years Old.
4 => Finn Is 15 Years Old.
```

zip()

In [6]:
```
zip(name,age)
```

Out[6]:
```
<zip at 0x180e5501040>
```

In [7]:
```
for k in zip(name,age):
    print(k)
```

```
('Sean', 15)
('Jack', 16)
('Luke', 15)
('Mike', 16)
('Finn', 10)
```

In [8]:
```
data = list(zip(name,age))
```

In [10]:
```
data
```

Out[10]:
```
[('Sean', 15), ('Jack', 16), ('Luke', 15), ('Mike', 16), ('Finn', 10)]
```

range()

```
range(start,stop,step)
```

In [11]:
```
range(10)
```

Out[11]:
```
range(0, 10)
```

In [12]:
```
for k in range(10):
    print(k)
```

```
0
1
2
3
4
5
6
7
8
9
```

In [13]:
```
for k in range(10):
    print(k,end=" ")
```

```
0 1 2 3 4 5 6 7 8 9
```

In [14]:
```
lst = list(range(10))
```

In [15]:
```
lst
```

Out[15]:
```
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

In [16]:
```
for k in range(2,21,2):
    print(k,end = " ")
```

```
2 4 6 8 10 12 14 16 18 20
```

In [18]:
```
lst = []
for k in range(500):
    if k%5==0:
        lst.append(k)
print("Final List Is :\n")
print(lst)
```

```
Final List Is :

[0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100,
105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 18
5, 190, 195, 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265,
270, 275, 280, 285, 290, 295, 300, 305, 310, 315, 320, 325, 330, 335, 340, 345, 35
0, 355, 360, 365, 370, 375, 380, 385, 390, 395, 400, 405, 410, 415, 420, 425, 430,
435, 440, 445, 450, 455, 460, 465, 470, 475, 480, 485, 490, 495]
```

In [19]:
```
## str1 = "abnjeropsuilvsdabnjer"
  ## Find The Unique Values From Given String.
  ## Append The Single Char In A List.
  ## Make Two Words.
  ## Find The Vowels From Given String.
  ## Find The Consonant From Given String.

## Marks = {"Sean":560,"Mike":520,"Jenny":595,"Luke":500,"Finn":555}
  ## Take A Input And Get The Marks of Stud(Key) if Exist.
  ## Get The Marks With Percentage , Here Total Marks Is 600.
  ## Find The Max And Min Percentage.
  ## Find The Mean And Median.

## Make A Program about While And For Loop.

## Apply The For Loop Over The While Loop.
```

In [122…
```
name
```

Out[122]:
```
['Sean', 'Jack', 'Luke', 'Mike', 'Finn']
```

Even Pos => Green

Odd Pos => Red

In [21]:
```
len(name)
```

Out[21]:
```
5
```

In [22]:
```
from colorama import *
```

In [23]:
```
for k in range(len(name)):
    if k%2==0:
        print(Fore.GREEN+name[k],end= " ")
    else:
        print(Fore.RED+name[k],end= " ")
```

```
Sean Jack Luke Mike Finn
```

In [24]:
```
start = int(input("Enter The Starting Value :"))
stop = int(input("\nEnter The Stopping Value :"))
step = int(input("\nEnter The Step Value :"))
print()
for k in range(start,stop,step):
    print(k,end=" | ")
```

```
Enter The Starting Value :5

Enter The Stopping Value :51

Enter The Step Value :5

5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
```

In [25]:
```
Total_Marks = 600
Marks = {"Mike":500,"Jenny":590,"Luke":520,"Finn":550,"Allen":510}
```

In [27]:
```
Stud_Name = input("Enter The Stud Name :")
print("")
index = 1
for k in Marks:
    if k == Stud_Name:
        print(index,k,"-->",Marks[k])
        opt = input("\nDo You Want To Get The Percentage ? :")
        if opt=="Yes":
            per = (Marks[k]/Total_Marks)*100
            print("")
            print(Stud_Name,'''Per Is :''',round(per),"%")
        break
    index+=1
else:
    print(Stud_Name,"Is Not Exist..")
```

```
Enter The Stud Name :Jenny

2 Jenny --> 590

Do You Want To Get The Percentage ? :Yes

Jenny Per Is : 98 %
```

In [28]:
```
Stud_Name = input("Enter The Stud Name :")
print("")
index = 1
for k in Marks:
    if k == Stud_Name:
        print(index,k,"-->",Marks[k])
        opt = input("\nDo You Want To Get The Percentage ? :")
        if opt=="Yes":
            per = (Marks[k]/Total_Marks)*100
            print("")
            print(Stud_Name,'''Per Is :''',round(per),"%")
        break
    index+=1
else:
    print(Stud_Name,"Is Not Exist..")
```

```
Enter The Stud Name :Peter

Peter Is Not Exist..
```

In [30]:
```
Stud_Name = input("Enter The Stud Name :")
print("")
index = 1
for k in Marks:
    if k == Stud_Name:
        print(index,k,"-->",Marks[k])
        opt = input("\nDo You Want To Get The Percentage ? :")
        if opt=="Yes":
            per = (Marks[k]/Total_Marks)*100
            print("")
            print(Fore.GREEN+Back.BLACK+Stud_Name,'''Per Is :''',round(per),"%")
        break
    index+=1
else:
    print(Stud_Name,"Is Not Exist..")
```

```
Enter The Stud Name :Jenny

2 Jenny --> 590

Do You Want To Get The Percentage ? :Yes

Jenny Per Is : 98 %
```

In [31]:
```
Total_Marks = 600
Marks = {"Mike":500,"Jenny":590,"Luke":520,"Finn":550,"Allen":510}
```

In [32]:
```
for k in Marks:
    print(k)
```

```
Mike
Jenny
Luke
Finn
Allen
```

In [33]:
```
Marks["Jenny"]
```

Out[33]:
```
590
```

In [34]:
```
alphabets = "ABEIJLMOUWRSTWXY"
```

In [36]:
```
index = 0
for k in alphabets:
    if k=="A" or k=="E" or k=="I" or k=="O" or k=="U":
        print(index,"Vowel Letter Is :",k)
        index+=1
```

```
0 Vowel Letter Is : A
1 Vowel Letter Is : E
2 Vowel Letter Is : I
3 Vowel Letter Is : O
4 Vowel Letter Is : U
```

Vowel : Green
Consonant : Red

In [37]:
```
msg = "ABEIJLMOUWRSTWXY"
from colorama import *
index = 1
for k in msg:
    if k=="A" or k=="E" or k=="I" or k=="O" or k=="U":
        print(Fore.GREEN+str(index),"Vowel Letter Is :",k)
    else:
        print(Fore.RED+str(index),"Consonant Letter Is :",k)
    index+=1
```

```
1 Vowel Letter Is : A
2 Consonant Letter Is : B
3 Vowel Letter Is : E
4 Vowel Letter Is : I
5 Consonant Letter Is : J
6 Consonant Letter Is : L
7 Consonant Letter Is : M
8 Vowel Letter Is : O
9 Vowel Letter Is : U
10 Consonant Letter Is : W
11 Consonant Letter Is : R
12 Consonant Letter Is : S
13 Consonant Letter Is : T
14 Consonant Letter Is : W
15 Consonant Letter Is : X
16 Consonant Letter Is : Y
```

In [ ]: