

```
In [1]: l= [1,2,3,4,5,]
```

```
In [4]: for i in l:  
        print(i,type(i))
```

```
1 <class 'int'>  
2 <class 'int'>  
3 <class 'int'>  
4 <class 'int'>  
5 <class 'int'>
```

```
In [3]: type(i)
```

```
Out[3]: int
```

```
In [5]: l1=["sudh","kumar","krish","naik"]
```

```
In [6]: for i in l1:  
        print(i)
```

```
sudh  
kumar  
krish  
naik
```

```
In [8]: for i in l1:  
        print(i)  
        else:  
            print("if for loop is able to complete itself then only else will execute")
```

```
sudh  
kumar  
krish  
naik  
if for loop is able to complete itself then only else will execute
```

```
In [9]: l1
```

```
Out[9]: ['sudh', 'kumar', 'krish', 'naik']
```

```
In [10]: for i in l1:  
         if i == "kumar":  
             break  
         print(i)
```

```
sudh
```

```
In [11]: l1
```

```
Out[11]: ['sudh', 'kumar', 'krish', 'naik']
```

```
In [12]: for i in l1:
        if i == "kumar":
            break
        print(i)
    else:
        print("execute this if for loop is able to complete itself")
```

sudh

```
In [13]: l1
```

```
Out[13]: ['sudh', 'kumar', 'krish', 'naik']
```

```
In [14]: for i in l1:
        if i == "kumar":
            continue
        print(i)
```

sudh
krish
naik

```
In [15]: for i in l1:
        if i == "kumar":
            continue
        print(i)
    else:
        print("execute this if for loop is able to complete itself")
```

sudh
krish
naik
execute this if for loop is able to complete itself

```
In [16]: range(5)
```

```
Out[16]: range(0, 5)
```

```
In [17]: list(range(5))
```

```
Out[17]: [0, 1, 2, 3, 4]
```

```
In [18]: list(range(0,5,1))
```

```
Out[18]: [0, 1, 2, 3, 4]
```

```
In [19]: list(range(0,20,2))
```

```
Out[19]: [0, 2, 4, 6, 8, 10, 12, 14, 16, 18]
```

```
In [20]: list(range(-10,0))
```

Out[20]: [-10, -9, -8, -7, -6, -5, -4, -3, -2, -1]

In [22]: l1

Out[22]: ['sudh', 'kumar', 'krish', 'naik']

In [23]: len(l1)

Out[23]: 4

In [24]: list(range(len(l1)))

Out[24]: [0, 1, 2, 3]

```
In [26]: for i in range(len(l1)):
          print(l1[i])
```

sudh
kumar
krish
naik

In [27]: len(l1)

Out[27]: 4

In [28]: list(range(len(l1)-1,0,-1))

Out[28]: [3, 2, 1]

In [29]: l1

Out[29]: ['sudh', 'kumar', 'krish', 'naik']

```
In [33]: for i in range (len(l1)-1, -1, -1):
          print(l1[i])
```

naik
krish
kumar
sudh

In [7]: l2=[23,5,45,56,6,67,67,78,87,8998,9,9,8]

In [8]: list(range(0, len(l2),2))

Out[8]: [0, 2, 4, 6, 8, 10, 12]

```
In [9]: for i in range(0, len(l2), 2):
          print(l2[i])
```

23
45
6
67
87
9
8

In []: 12[0]

Out[]: 23

In [13]: l =[1,2,3,4,7,8,98]

In [15]: sum(l)

Out[15]: 123

```
In [19]: result= 0
        for i in l :
            result = result + i
        result
```

Out[19]: 123

In [20]: t = (1,2,3,4,4,5)

```
In [21]: for i in t:
        print(i)
```

1
2
3
4
4
5

```
In [22]: result= 0
        for i in t :
            result = result + i
        result
```

Out[22]: 19

In [24]: s ={ 1,2,3,4,5,"sudh","pwwskills"}

```
In [25]: for i in s :
        print(i)
```

```
1
2
3
4
5
sudh
pwskills
```

```
In [26]: s1="pwskills"
```

```
In [27]: for i in s1:
          print(i)
```

```
p
w
s
k
i
l
l
s
```

```
In [33]: d={"Name" : "sudh", "class": "data science masters",
           "topic": ["python", "stats", " machine learning", "dl", "cv", "NLP", "resum", "interview"]}
```

```
In [34]: d
```

```
Out[34]: {'Name': 'sudh',
          'class': 'data science masters',
          'topic': ['python',
                   'stats',
                   ' machine learning',
                   'dl',
                   'cv',
                   'NLP',
                   'resum',
                   'interview']}
```

```
In [36]: d
```

```
Out[36]: {'Name': 'sudh',
          'class': 'data science masters',
          'topic': ['python',
                   'stats',
                   ' machine learning',
                   'dl',
                   'cv',
                   'NLP',
                   'resum',
                   'interview']}
```

```
In [38]: d['Name']
```

```
Out[38]: 'sudh'
```

```
In [39]: d.keys()
```

```
Out[39]: dict_keys(['Name', 'class', 'topic'])
```

```
In [43]: for i in d.keys():  
         print(d[i])
```

```
sudh  
data science masters  
['python', 'stats', ' machine learning', 'dl', 'cv', 'NLP', 'resum', 'interview']
```

```
In [45]: d.values()
```

```
Out[45]: dict_values(['sudh', 'data science masters', ['python', 'stats', ' machine learnin  
g', 'dl', 'cv', 'NLP', 'resum', 'interview']])
```

```
In [47]: for i in d.values():  
         print(i)
```

```
sudh  
data science masters  
['python', 'stats', ' machine learning', 'dl', 'cv', 'NLP', 'resum', 'interview']
```

```
In [48]: d.items()
```

```
Out[48]: dict_items([('Name', 'sudh'), ('class', 'data science masters'), ('topic', ['pytho  
n', 'stats', ' machine learning', 'dl', 'cv', 'NLP', 'resum', 'interview'])])
```

```
In [49]: for i in d.items():  
         print(i)
```

```
('Name', 'sudh')  
('class', 'data science masters')  
('topic', ['python', 'stats', ' machine learning', 'dl', 'cv', 'NLP', 'resum', 'in  
terview'])
```

```
In [ ]:
```