```
In [1]:   names=["saeed","rana","ali","fraz","saddiq","ramzan"]
```

```
In [2]:   names
```
Out[2]:   ['saeed', 'rana', 'ali', 'fraz', 'saddiq', 'ramzan']

ACCESS THE VALUE

```
In [3]:   names[4]
```
Out[3]:   'saddiq'

```
In [4]:   names[2]
```
Out[4]:   'ali'

```
In [5]:   names[5]
```
Out[5]:   'ramzan'

LENGTH OF LIST

```
In [6]:   len(names)
```
Out[6]:   6

```
In [7]:   number=[2,4,10,5,782,55,]
```

```
In [8]:   len(number)
```
Out[8]:   6

```
In [9]:   number
```
Out[9]:   [2, 4, 10, 5, 782, 55]

```
In [10]:  names
```
Out[10]: ['saeed', 'rana', 'ali', 'fraz', 'saddiq', 'ramzan']

ADDING A VALUE IN LISTS

```
In [11]: #   WE USED THE FUNCTION
         append()
```

```
In [12]: names.append("shakeel")
```

```
In [13]: names
```
```
Out[13]: ['saeed', 'rana', 'ali', 'fraz', 'saddiq', 'ramzan', 'shakeel']
```

```
In [14]: number.append(77)
```

```
In [15]: number
```
```
Out[15]: [2, 4, 10, 5, 782, 55, 77]
```

INSERT

```
In [16]: #  WE USED INSERT FOR ADDING VALUE ON ANY INDEX
```

```
In [17]: names
```
```
Out[17]: ['saeed', 'rana', 'ali', 'fraz', 'saddiq', 'ramzan', 'shakeel']
```

```
In [19]: names.insert(3,"irfan")
```

names

```
In [20]: print(names)
         ['saeed', 'rana', 'ali', 'irfan', 'fraz', 'saddiq', 'ramzan', 'shakeel']
```

```
In [21]: names
```
```
Out[21]: ['saeed', 'rana', 'ali', 'irfan', 'fraz', 'saddiq', 'ramzan', 'shakeel']
```

```
In [22]: names.insert(0,"ramzan")
```

```
In [23]: names
```
```
Out[23]: ['ramzan',
          'saeed',
          'rana',
          'ali',
          'irfan',
          'fraz',
          'saddiq',
          'ramzan',
          'shakeel']
```

```
In [24]: print(names)

['ramzan', 'saeed', 'rana', 'ali', 'irfan', 'fraz', 'saddiq', 'ramzan', 'shak
eel']
```

EXTEND FUNCTION

```
In [29]: number
Out[29]: [2, 4, 10, 5, 782, 55, 77, 20, 30, 40, 60]
```

```
In [26]: number.extend([20,30,40,60])
```

```
In [27]: number
Out[27]: [2, 4, 10, 5, 782, 55, 77, 20, 30, 40, 60]
```

```
In [28]: #  WE ADD MORE THAN ONE VALUES IN LISTS
```

COUNT FUNCTION

```
In [30]: names
Out[30]: ['ramzan',
          'saeed',
          'rana',
          'ali',
          'irfan',
          'fraz',
          'saddiq',
          'ramzan',
          'shakeel']
```

```
In [31]: names.count("ramzan")
Out[31]: 2
```

```
In [32]: number.extend([10,10,10,10])
```

```
In [33]: number
Out[33]: [2, 4, 10, 5, 782, 55, 77, 20, 30, 40, 60, 10, 10, 10, 10]
```

```
In [34]: number.count(10)
Out[34]: 5
```

INDEX FUNCTION

```
In [35]:  #  WE CAN FIND VALUE OF INDEX
```

```
In [36]:  names
```

```
Out[36]:  ['ramzan',
           'saeed',
           'rana',
           'ali',
           'irfan',
           'fraz',
           'saddiq',
           'ramzan',
           'shakeel']
```

```
In [37]:  names.index("saddiq")
```

```
Out[37]:  6
```

```
In [38]:  names.index("saeed")
```

```
Out[38]:  1
```

CLEAR FUNCTION

```
In [39]:  sub=["eng","urdu","math"]
```

```
In [40]:  sub
```

```
Out[40]:  ['eng', 'urdu', 'math']
```

```
In [41]:  sub.clear()
```

```
In [42]:  sub
```

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

```
In [43]:  #  it is used for delete all value permanently
```

COPY FUNCTION

```
In [44]:  # COPY BY VALUE
```

```
In [45]:  names
```

```
Out[45]:  ['ramzan',
           'saeed',
           'rana',
           'ali',
           'irfan',
           'fraz',
           'saddiq',
           'ramzan',
           'shakeel']
```

```
In [47]:  names2=names.copy()
```

names2

```
In [48]:  print(names2)

          ['ramzan', 'saeed', 'rana', 'ali', 'irfan', 'fraz', 'saddiq', 'ramzan', 'shak
          eel']
```

```
In [49]:  names
```

```
Out[49]:  ['ramzan',
           'saeed',
           'rana',
           'ali',
           'irfan',
           'fraz',
           'saddiq',
           'ramzan',
           'shakeel']
```

```
In [50]:  names5=names      ###COPY BY REFERENCE
```

```
In [51]:  names5
```

```
Out[51]:  ['ramzan',
           'saeed',
           'rana',
           'ali',
           'irfan',
           'fraz',
           'saddiq',
           'ramzan',
           'shakeel']
```

```
In [52]:  names.append("ijaz")
```

```
In [53]:  names
```

```
Out[53]:  ['ramzan',
           'saeed',
           'rana',
           'ali',
           'irfan',
           'fraz',
           'saddiq',
           'ramzan',
           'shakeel',
           'ijaz']
```

```
In [54]:  names2
```

```
Out[54]:  ['ramzan',
           'saeed',
           'rana',
           'ali',
           'irfan',
           'fraz',
           'saddiq',
           'ramzan',
           'shakeel']
```

```
In [55]:  names5
```

```
Out[55]:  ['ramzan',
           'saeed',
           'rana',
           'ali',
           'irfan',
           'fraz',
           'saddiq',
           'ramzan',
           'shakeel',
           'ijaz']
```

REMOVING AN ITEM FROM THE LISTS

```
In [56]:  names
```

```
Out[56]:  ['ramzan',
           'saeed',
           'rana',
           'ali',
           'irfan',
           'fraz',
           'saddiq',
           'ramzan',
           'shakeel',
           'ijaz']
```

```
In [57]: names.remove("ramzan")
```

```
In [58]: names
```

```
Out[58]: ['saeed',
          'rana',
          'ali',
          'irfan',
          'fraz',
          'saddiq',
          'ramzan',
          'shakeel',
          'ijaz']
```

```
In [59]: number
```

```
Out[59]: [2, 4, 10, 5, 782, 55, 77, 20, 30, 40, 60, 10, 10, 10, 10]
```

```
In [60]: number.remove(782)
```

```
In [61]: number
```

```
Out[61]: [2, 4, 10, 5, 55, 77, 20, 30, 40, 60, 10, 10, 10, 10]
```

DELETE

```
In [62]: names
```

```
Out[62]: ['saeed',
          'rana',
          'ali',
          'irfan',
          'fraz',
          'saddiq',
          'ramzan',
          'shakeel',
          'ijaz']
```

```
In [66]: names
```

```
Out[66]: ['saeed',
          'rana',
          'ali',
          'irfan',
          'fraz',
          'saddiq',
          'ramzan',
          'shakeel',
          'ijaz']
```

In [67]: number

Out[67]: [2, 4, 10, 5, 55, 77, 20, 30, 40, 60, 10, 10, 10, 10]

POP FUNCTION

In [68]: number

Out[68]: [2, 4, 10, 5, 55, 77, 20, 30, 40, 60, 10, 10, 10, 10]

In [70]: number.remove(10)

In [71]: number

Out[71]: [2, 4, 5, 55, 77, 20, 30, 40, 60, 10, 10, 10, 10]

In [72]: names

Out[72]: ['saeed',
           'rana',
           'ali',
           'irfan',
           'fraz',
           'saddiq',
           'ramzan',
           'shakeel',
           'ijaz']

In [73]: names10=names.pop(4)

In [74]: names

Out[74]: ['saeed', 'rana', 'ali', 'irfan', 'saddiq', 'ramzan', 'shakeel', 'ijaz']

In [75]: names10

Out[75]: 'fraz'

In [77]: number10=number.pop(7)

number

number10

In [78]: print(number)

          [2, 4, 5, 55, 77, 20, 30, 60, 10, 10, 10, 10]

In [79]: `number10`

Out[79]: 40

SORT FUNCTION

In [80]: `number.sort()`

In [81]: `number`

Out[81]: `[2, 4, 5, 10, 10, 10, 10, 20, 30, 55, 60, 77]`

In [82]: `names`

Out[82]: `['saeed', 'rana', 'ali', 'irfan', 'saddiq', 'ramzan', 'shakeel', 'ijaz']`

In [83]: `names.sort()`

In [84]: `names`

Out[84]: `['ali', 'ijaz', 'irfan', 'ramzan', 'rana', 'saddiq', 'saeed', 'shakeel']`

In [85]: `number.reverse()`

In [86]: `number`

Out[86]: `[77, 60, 55, 30, 20, 10, 10, 10, 10, 5, 4, 2]`

REVERSRE FUNCTION

In [87]: `names`

Out[87]: `['ali', 'ijaz', 'irfan', 'ramzan', 'rana', 'saddiq', 'saeed', 'shakeel']`

In [88]: `names.reverse()`

In [89]: `names`

Out[89]: `['shakeel', 'saeed', 'saddiq', 'rana', 'ramzan', 'irfan', 'ijaz', 'ali']`

In [90]: `number`

Out[90]: `[77, 60, 55, 30, 20, 10, 10, 10, 10, 5, 4, 2]`

In [91]: `number.reverse()`

In [92]:
```
number
```

Out[92]: `[2, 4, 5, 10, 10, 10, 10, 20, 30, 55, 60, 77]`

In [ ]: