## Question 1:

Use the dictionary, port1 = {21: "FTP", 22:"SSH", 23: "telnet", 80: "http"}, and make a new dictionary in which keys become values and values become keys, as shown: Port2 = {“FTP":21, "SSH":22, “telnet":23, "http": 80}

In [4]:
```
port1={ 21: 'ftp', 22: 'ssh', 23: 'telnet', 80: 'http'}
port2={}
for k,v in port1.items():
    port2[v]=k

print(port2)
```

```
{'ftp': 21, 'ssh': 22, 'telnet': 23, 'http': 80}
```

In [5]:
```
#list comprehension
port2={v:k for k,v in port1.items()}
print(port2)
```

```
{'ftp': 21, 'ssh': 22, 'telnet': 23, 'http': 80}
```

## Question 2 :

Take a list of tuple as shown below. [(1,2), (3,4), (5,6),(4,5)] Make a new list which contains sum of number of tuples. For example Input [(1,2), (3,4), (5,6)] Out put [3, 7, 11]

In [1]:
```
list1=[(1,2),(3,4),(5,6),(4,5)]
list2=[]
for i in list1:
    list2.append(i[0]+i[1])

list2
```

Out[1]:
```
[3, 7, 11, 9]
```

In [2]:
```
list2=[]
#list comprehension
[list2.append(i[0]+i[1])  for i in list1]
list2
```

Out[2]:
```
[3, 7, 11, 9]
```

## Question 3: make elements of list in given list be elements of inner list and tuple to be elements of outer list

In [3]:
```
l=[(1,2,3),[1,2],["a","hit","less"]]
l2=[]
for i in l:
    if type(i)==tuple:
        l1=list(i)
    if type(i)==list:
        l2=l2+i

l1.append(l2)
print(l1)
```

```
[1, 2, 3, [1, 2, 'a', 'hit', 'less']]
```