In [2]:

```
# Add New items in Dictionary
contacts ={"name":'narayana','mobile1':9685741263,"mailid":"abc@gmail.com"}
```

In [3]:

```
print(contacts)
```

```
{'name': 'narayana', 'mobile1': 9685741263, 'mailid': 'abc@gmail.com'}
```

In [4]:

```
# Add new item to existed Dict
contacts['landline']="221889-22123218"
```

In [5]:

```
print(contacts)
```

```
{'name': 'narayana', 'mobile1': 9685741263, 'mailid': 'abc@gmail.com', 'land
line': '221889-22123218'}
```

In [6]:

```
contacts['name']
```

Out[6]:

```
'narayana'
```

In [7]:

```
t={[1,2,3]:"check me"}
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-7-f2bcd6706205> in <module>
----> 1 t={[1,2,3]:"check me"}

TypeError: unhashable type: 'list'
```

In [9]:

```
keys=[1,2,3,4,5]
values=["one","two","three",'four']
print(zip(keys,values))
temp=dict(zip(keys,values))
```

```
<zip object at 0x00000211A8E42740>
```

In [10]:

```
print(temp)
```

```
{1: 'one', 2: 'two', 3: 'three', 4: 'four'}
```

In [67]:

```
# Words Count using Dictionary
data = input("Enter Something: ")
data1= data.split()
words_count={}
for word in data1:
    if word in words_count:
        words_count[word]+=1
    else:
        words_count[word]=1
print(words_count)
```

```
Enter Something: Hello this is a python programming python2 python3
{'Hello': 1, 'this': 1, 'is': 1, 'a': 1, 'python': 1, 'programming': 1, 'pyt
hon2': 1, 'python3': 1}
```

In [2]:

```
# Dictionary Methods
# dir(dictionary variable)
# dir(dictionary value)
# dir(dict predefind Function)
print(dir(words_count))
```

```
['__class__', '__contains__', '__delattr__', '__delitem__', '__dir__', '__do
c__', '__eq__', '__format__', '__ge__', '__getattribute__', '__getitem__',
'__gt__', '__hash__', '__init__', '__init_subclass__', '__iter__', '__le__',
'__len__', '__lt__', '__ne__', '__new__', '__reduce__', '__reduce_ex__', '__
repr__', '__reversed__', '__setattr__', '__setitem__', '__sizeof__', '__str_
_', '__subclasshook__', 'clear', 'copy', 'fromkeys', 'get', 'items', 'keys',
'pop', 'popitem', 'setdefault', 'update', 'values']
```

In [3]:

```
# items()
words_count.items()
```

Out[3]:

```
dict_items([('hello', 1), ('this', 2), ('is', 1), ('a', 1), ('python', 2),
('class', 2), ('to', 1), ('learn', 1), ('programming', 1), ('in', 1)])
```

In [4]:

```
# keys()
words_count.keys()
```

Out[4]:

```
dict_keys(['hello', 'this', 'is', 'a', 'python', 'class', 'to', 'learn', 'pr
ogramming', 'in'])
```

In [5]:

```
# values()
words_count.values()
```

Out[5]:

```
dict_values([1, 2, 1, 1, 2, 2, 1, 1, 1, 1])
```

In [68]:

```
# copy()
n=dict()
n=words_count.copy()
print(n)
```

```
{'Hello': 1, 'this': 1, 'is': 1, 'a': 1, 'python': 1, 'programming': 1, 'pyt
hon2': 1, 'python3': 1}
```

In [9]:

```
words_count['hello']
```

Out[9]:

```
1
```

In [10]:

```
words_count['hello']=201
```

In [11]:

```
words_count['hello']
```

Out[11]:

```
201
```

In [69]:

```
n
```

Out[69]:

```
{'Hello': 1,
 'this': 1,
 'is': 1,
 'a': 1,
 'python': 1,
 'programming': 1,
 'python2': 1,
 'python3': 1}
```

In [13]:

```
m =dict()
m=words_count
```

In [14]:

```
words_count['hello']=555
```

In [15]:

```
print(m)
```

```
{'hello': 555, 'this': 2, 'is': 1, 'a': 1, 'python': 2, 'class': 2, 'to': 1,
'learn': 1, 'programming': 1, 'in': 1}
```

In [16]:

```
# get()
words_count.get('this')
```

Out[16]:

```
2
```

In [17]:

```
words_count.get("java")
```

In [18]:

```
words_count.get("java","Not Found...")
```

Out[18]:

```
'Not Found...'
```

In [19]:

```
words_count['java']
```

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
<ipython-input-19-b50709b31125> in <module>
----> 1 words_count['java']

KeyError: 'java'
```

In [22]:

```
# fromkeys()
names=("ravi","indu priya","narayana",'surya')
temp1=dict()
temp1.fromkeys(names)
```

Out[22]:

```
{'ravi': None, 'indu priya': None, 'narayana': None, 'surya': None}
```

In [23]:

```
numbers=dict()
numbers.fromkeys(list(range(1,5)))
```

Out[23]:

```
{1: None, 2: None, 3: None, 4: None}
```

In [70]:

```
numbers.fromkeys("programming",1,2,3,4,5,6)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-70-99116e1b1163> in <module>
----> 1 numbers.fromkeys("programming",1,2,3,4,5,6)

TypeError: fromkeys expected at most 2 arguments, got 7
```

In [73]:

```
#setdefault()
words_count
```

Out[73]:

```
{'Hello': 1,
 'this': 1,
 'is': 1,
 'a': 1,
 'python': 1,
 'programming': 1,
 'python2': 1,
 'python3': 1}
```

In [71]:

```
words_count.setdefault('python')
```

Out[71]:

```
1
```

In [75]:

```
words_count.setdefault('python3',"I am new")
```

Out[75]:

```
1
```

In [31]:

```
words_count
```

Out[31]:

```
{'hello': 555,
 'this': 2,
 'is': 1,
 'a': 1,
 'python': 2,
 'class': 2,
 'to': 1,
 'learn': 1,
 'programming': 1,
 'in': 1,
 'python3': 'I am new'}
```

In [32]:

```
words_count.setdefault('python2')
```

In [34]:

```
words_count
```

Out[34]:

```
{'hello': 555,
 'this': 2,
 'is': 1,
 'a': 1,
 'python': 2,
 'class': 2,
 'to': 1,
 'learn': 1,
 'programming': 1,
 'in': 1,
 'python3': 'I am new',
 'python2': None}
```

In [66]:

```
words_count.setdefault('python3',"Once create me")
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-66-3e0764dcea0a> in <module>
----> 1 words_count.setdefault('python3',"Once create me")

NameError: name 'words_count' is not defined
```

In [36]:

```
# update()
temp={"ramu":78,"kiran":90,"sitha":78}
words_count.update(temp)
```

In [37]:

```
print(words_count)
```

```
{'hello': 555, 'this': 2, 'is': 1, 'a': 1, 'python': 2, 'class': 2, 'to': 1,
'learn': 1, 'programming': 1, 'in': 1, 'python3': 'I am new', 'python2': Non
e, 'ramu': 78, 'kiran': 90, 'sitha': 78}
```

In [38]:

```
words_count.update(sitha="check me")
```

In [39]:

```
words_count
```

Out[39]:

```
{'hello': 555,
 'this': 2,
 'is': 1,
 'a': 1,
 'python': 2,
 'class': 2,
 'to': 1,
 'learn': 1,
 'programming': 1,
 'in': 1,
 'python3': 'I am new',
 'python2': None,
 'ramu': 78,
 'kiran': 90,
 'sitha': 'check me'}
```

In [42]:

```
words_count.update(ravi=99)
```

In [43]:

```
print(words_count)
```

```
{'hello': 555, 'this': 2, 'is': 1, 'a': 1, 'python': 2, 'class': 2, 'to': 1,
'learn': 1, 'programming': 1, 'in': 1, 'python3': 'I am new', 'python2': Non
e, 'ramu': 78, 'kiran': 90, 'sitha': 'check me', 'ravi': 99}
```

In [45]:

```
# pop()
words_count.pop('sitha')
```

Out[45]:

```
'check me'
```

In [46]:

```
print(words_count)
```

```
{'hello': 555, 'this': 2, 'is': 1, 'a': 1, 'python': 2, 'class': 2, 'to': 1,
'learn': 1, 'programming': 1, 'in': 1, 'python3': 'I am new', 'python2': Non
e, 'ramu': 78, 'kiran': 90, 'ravi': 99}
```

In [47]:

```
# popitem()
words_count.popitem()
```

Out[47]:

```
('ravi', 99)
```

In [48]:

```
# clear()
words_count.clear()
```

In [49]:

```
print(words_count)
```

```
{}
```

In [50]:

```
del words_count,temp
```

In [51]:

```
words_count
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-51-6b8a8d460273> in <module>
----> 1 words_count

NameError: name 'words_count' is not defined
```

In [52]:

```
len({1:11,2:22})
```

Out[52]:

```
2
```

File Handling

- Create File
- Write File
- Read File

In [53]:

```
# Syntax of FIle Open
# open("filename.extention","mode")
# Perform Operation on file
# Close File
```

In [55]:

```
# Create File using "x" (create mode)
file= open("apssdc.txt","x")
print(file)
```

```
---------------------------------------------------------------------------
FileExistsError                           Traceback (most recent call last)
<ipython-input-55-4948a83273dd> in <module>
      1 # Create File using "x" (create mode)
----> 2 file= open("apssdc.txt","x")
      3 print(file)

FileExistsError: [Errno 17] File exists: 'apssdc.txt'
```

In [56]:

```
file.close() # disconnect the connection b/w python, apssdc.txt
```

In [57]:

```
new_file= open("one.txt",'x')
```

In [58]:

```
new_file.close()
```

In [60]:

```
"""
X mode Rules:-
--------------
Data Read don't work
data write is working
if file is already existed then it will returns error
"""
```

...

In [61]:

```
new_file=open("temp.txt",'x')
new_file.write("Hello Python") #write data to file I/P:shoild be string
new_file.close()
```

In [62]:

```
new=open("test.txt",'x')
new.write("hello students")
new.read()
new.close()
```

. . .

In [65]:

```
# Write File using 'w' (write mode)
"""
W mode Rules:-
--------------
data Reading not Supported
Data Writing is Supported
if file is already existed then file is overriding(file deleted & again
                                                   create file with same name)
"""
file1= open("C:\\Users\\HP\\Desktop\\apssdc.txt","w")
file1.close()
```

In [ ]:

```
# Overcome "\Escape Sequence" Error
# Replace '\' to "\\"
# Replace '\' to '/'
# Add r'C:\Users\HP\Desktop'   # r means raw path/location
```