

DICTIONARY

#Author - Soumitra Das

Date - 10/01/2023

(a) Create a Dictionary

```
d1={1:'ami',2:'tumi',3:'se',4:'friend'}  
print ("The Dictionary is: ", end=' ')  
print(d1)
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

The Dictionary is : {1: 'ami', 2: 'tumi', 3: 'se', 4: 'friend'}

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(b) Access Values using Keys

```
d2= {1:5,2:4,3:5,3:8}  
print ("The Dictionary is {}".format(d2))  
n=int (input ("Enter 'key' from the Dictionary:"))  
print ("The value of '{}' is: {}".format(n), end=' ')  
print(d2[n])
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

The Dictionary is {1: 5, 2: 4, 3: 8}

Enter 'key' from the Dictionary :3

The value of '3' is : 8

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(c) Use get () method to access values

```
d2= {1:5,2:4,4:5,3:8}
print ("The dictionary is: ", d2)
print(d2.get (2))
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"

The dictionary is : {1: 5, 2: 4, 4: 5, 3: 8}

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```

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(d) Create a dictionary from two lists.

```
key=['cpu','ssd','ram']
valu=['2.4Hz','512',8]
print("The 1st list is : {}".format(key))
print("The 2st list is : {}".format(valu))
print("The Dictionary is : ",end=' ')
print(dict(zip(key,valu)))
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"

The 1st list is : ['cpu', 'ssd', 'ram']
The 2st list is : ['2.4Hz', '512', 8]
The Dictionary is : {'cpu': '2.4Hz', 'ssd': '512', 'ram': 8}
```

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(e) Add a new item to the dictionary

```
d2={1:5,2:4,4:5,3:8}

print ("Before add a new item , The dictionary is: {}".format(d2))
```

```
d2[5]=10
```

```
print("After add a new item , the dictionary is: ",end=' ')
```

```
print(d2)
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

Before add a new item , The dictionary is: {1: 5, 2: 4, 4: 5, 3: 8}

After add a new item , the dictionary is: {1: 5, 2: 4, 4: 5, 3: 8, 5: 10}

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(f) Delete an item

```
d2={1:5,2:4,4:5,3:8}
```

```
print("Before delete an item , the dictionary is: {}".format(d2))
```

```
print("After delete an item , the dictionary is :",end=' ')
```

```
del d2[2]
```

```
print(d2)
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

Before delete an item , the dictionary is: {1: 5, 2: 4, 4: 5, 3: 8}

After delete an item , the dictionary is : {1: 5, 4: 5, 3: 8}

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(g) Create a nested dictionary

```
d1={'c':['dec c++','turbo c'],'python':{'64':'vscode',32:'pychram'}}
```

```
print("The nested dictionary is : ",d1)
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

The nested dictionary is : {'c': ['dec c++', 'turbo c'], 'python': {64: 'vscode', 32: 'pychram'}}

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(h) Delete an item using pop() method

```
d2={1:5,2:4,4:5,3:8}
```

```
print("Before delete an item , the dictionary is: {}".format(d2))
```

```
a=d2.pop(2)
```

```
print("After delete an item , the dictionary is :",end=' ')
```

```
print(d2)
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

```
Before delete an item , the dictionary is: {1: 5, 2: 4, 4: 5, 3: 8}
```

```
After delete an item , the dictionary is : {1: 5, 4: 5, 3: 8}
```

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(i) Delete an item using popitem () method

```
d2={1:5,2:4,4:5,3:8}
```

```
print("The dictionary is :{}".format(d2))
```

```
print("After execute 'popitem()' method , the dictionary is :",end=' ')
```

```
n=(d2.popitem())
```

```
print(d2)
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

```
The dictionary is :{1: 5, 2: 4, 4: 5, 3: 8}
```

```
After execute 'popitem()' method , the dictionary is: {1: 5, 2: 4, 4: 5}
```

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(j) Delete all items from a dictionary

```
d2={1:5,2:4,4:5,3:8}
```

```
print ("The dictionary is: {}".format(d2))
```

```
print("After delete all items from a dictionary , the dictionary is : ",end=' ')
```

```
print(d2.clear())
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

```
The dictionary is : {1: 5, 2: 4, 4: 5, 3: 8}
```

```
After delete all items from a dictionary , the dictionary is : None
```

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(k) Get the length of a dictionary

```
d2={1:5,2:4,4:5,3:8}
```

```
print ("The dictionary is: {}".format(d2))
```

```
print("The length of dictionary is : ",end=' ')
```

```
print(len(d2))
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

```
The dictionary is : {1: 5, 2: 4, 4: 5, 3: 8}
```

```
The length of dictionary is : 4
```

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(l) Execute items() method

```
d2={1:5,2:4,4:5,3:8}
```

```
print("The dictionary is : {}".format(d2))
```

```
print("After excute '.items()' method , the dictionary is : ",end=' ')
```

```
print(list(d2.items()))
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

```
The dictionary is : {1: 5, 2: 4, 4: 5, 3: 8}
```

```
After excute '.items()' method , the dictionary is : [(1, 5), (2, 4), (4, 5), (3, 8)]
```

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(m) Create a list with the keys of a dictionary

```
d2={1:5,2:4,4:5,3:8}
```

```
print("The dictionary is : {}".format(d2))
```

```
print("A list with the keys of a dictionary is : ",end=' ')
```

```
print(list(d2.keys()))
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

```
The dictionary is : {1: 5, 2: 4, 4: 5, 3: 8}
```

```
A list with the keys of a dictionary is : [1, 2, 4, 3]
```

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(n) Create a list with the values of a dictionary

```
d2={1:5,2:4,4:5,3:8}
```

```
print("The dictionary is {}".format(d2))
```

```
print("A list with the 'values' of a dictionary is : ",end=' ')
```

```
print(list(d2.values()))
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

The dictionary is {1: 5, 2: 4, 4: 5, 3: 8}

A list with the 'values' of a dictionary is : [5, 4, 5, 8]

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(o) Update a dictionary items with the items of another dictionary

```
d1={'a':'ami','b':'baba','c':'maa'}
```

```
d2={'a':'dada','x':'mama'}
```

```
print("The 1st dictionary is ",d1)
```

```
print("The 2nd dictionary is ",d2)
```

```
d1.update(d2)
```

```
print("After update() method , the dictionary is :",d1)
```

OUTPUT:

```
PS D:\Python> python -u "d:\Python\DICTIONARY\dic.py"
```

The 1st dictionary is {'a': 'ami', 'b': 'baba', 'c': 'maa'}

The 2nd dictionary is {'a': 'dada', 'x': 'mama'}

After update() method , the dictionary is : {'a': 'dada', 'b': 'baba', 'c': 'maa', 'x': 'mama'}