



Dictionary

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Dictionary



Dictionary (dict)

- Dict is collection of key-value pairs enclosed in curly braces { }.
- From Python 3.6 dict maintains the insertion order.
- It is mutable, elements can be added or removed from the original dict.
- **Keys are unique.**
- Each element is written as **key : value** combination.
- Key and value can be of same or different types for every element.

Examples:

```
dict_1 = {100: 'arun', 200: 'chandu', 'user': 'admin'}
```

```
dict_2 = {1: 'A', 2: 'B', 3: 'C'}
```

Accessing and updating dictionary items



Accessing and updating dictionary items

- Dictionary items are accessed and updated by mentioning the keys.

Program:

```
dict_1 = {100:'arun', 200:'chandu', 'user':'admin'}  
  
print(dict_1[200]) #gets the value of key 200: chandu  
  
print(dict_1.get('user')) #gets the value of key user: admin  
  
dict_1['user']='customer' #updating value for key user  
  
print(dict_1) #{100:'arun', 200:'chandu', 'user':'customer'}
```

Add, Delete, Remove, Clear operations



Add, Delete, Remove, Clear operations

Program:

```
dict_1 = {1:'A', 2:'B', 3:'C'}  
dict_1[4] = 'D'  #adding new key-value pair  
dict_1.pop(1)    #deleting item with key 1  
del dict_1[2]    #deleting item with key 2  
dict_1.clear()   #empties the dictionary  
del dict_1       #deletes the dictionary
```


Other important functions

Function syntax	Description
dict_name. <code>copy</code> ()	Returns a copy of the dictionary.
dict_name. <code>keys</code> ()	Returns a list of all the keys in the dictionary.
dict_name. <code>values</code> ()	Returns a list of all the values in the dictionary.

for loop with dictionary



for loop with dictionary

When we loop through a dictionary using for loop, it iterates only the keys:

Program:

```
dict_1 = {1:'A', 2:'B', 3:'C'}  
for k in dict_1:  
    print(k) #printing keys  
for k in dict_1:  
    print(dict_1[k]) #printing values
```

Output:

1
2
3
A
B
C

in keyword with dictionary



in keyword with dictionary

We can check whether a specified key is present in the dictionary using in keyword:

Program:

```
dict_1 = {1:'A', 2:'B', 3:'C'}  
if 1 in dict_1:  
    print("yes key 1 is present")  
else:  
    print("key 1 is not present")
```

Output:

yes key 1 is present



Thank you