Dictionary

Agenda

1. Dictionary
2. Accessing and updating dictionary items
3. Add, Delete, Remove, Clear operations
4. for loop with dictionary
5. in keyword with dictionary

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.copy( )	Returns a copy of the dictionary.
dict_name.keys( )	Returns a list of all the keys in the dictionary.
dict_name.values( )	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