

Python Dictionary Methods

Anoop S Babu

Faculty Associate

Dept. of Computer Science & Engineering

bsanoop@am.amrita.edu

Add key-value pairs to Dictionary

- Using **key** as index

```
>>> dic = { }
```

```
>>> dic["name"] = "Manav"
```

```
>>> dic["program"] = "MCA"
```

```
>>> print(dic)
```

```
{'name': 'Manav', 'program': 'MCA'}
```

- Add only a single item

Add key-value pairs to Dictionary

- Using **update()** method

```
>>> d1 = {"course": "Python", "semester": 1 }
```

```
>>> dic.update(d1)
```

```
>>> print(dic)
```

```
{'name': 'Manav', 'program': 'MCA', 'course': 'Python',  
'semester': 1 }
```

- Add multiple items

Remove an item from Dictionary - 1

- Using `pop(key)` method

```
dic = {'name': 'Manav', 'program': 'MCA', 'course':  
'Python', 'semester': 1 }
```

```
>>> dic.pop("program")  
'MCA'
```

- Removes the key-value pair and returns the value

Remove an item from Dictionary - 2

- Using **popitem()** method

```
dic = {'name': 'Manav', 'program': 'MCA', 'course':  
'Python', 'semester': 1 }
```

```
>>> dic.popitem()  
( 'semester', 1 )
```

- Removes the last inserted key-value pair and returns the pair

Removal using del function

```
dic = {'name': 'Manav', 'program': 'MCA', 'course':  
'Python', 'semester': 1 }
```

```
>>> del dic["name"]
```

```
>>> print(dic)
```

```
{'program': 'MCA', 'course': 'Python', 'semester': 1 }
```

Removal using del function

```
>>> del dic
```

```
>>> print(dic)
```

```
...
```

NameError: name 'dic' is not defined

- Removes the item, if specify a key
- else removes the object.
- Returns nothing.

Clearing values

- using **clear()** method

```
>>> dic = {'name': 'Manav', 'program': 'MCA',  
'course': 'Python', 'semester': 1 }
```

```
>>> dic.clear()
```

```
>>> dic  
{ }
```

- Returns nothing

More methods

- **setdefault()** method returns a value of the item with the specified key.
- If the key does not exist, insert the key with the specified value.

```
>>> dic = {"P":"Python", "J":"Java" }
```

```
>>> dic.setdefault("J")
```

```
'Java'
```

setdefault - *key doesn't exists*

```
>>> dic.setdefault("C") #didn't specify default value
```

```
>>> dic
```

```
{'P': 'Python', 'J': 'Java', 'C': None}
```

```
>>> dic.setdefault("R","Ruby")
```

```
'Ruby'
```

```
>>> dic
```

```
{'P': 'Python', 'J': 'Java', 'C': None, 'R': 'Ruby'}
```

copy

- **copy()** – returns a copy of the dictionary

```
>>> dic = {"P":"Python", "J":"Java"}
```

```
>>> cdic =dic.copy()
```

```
>>> cdic
```

```
{'P': 'Python', 'J': 'Java'}
```