

```
In [4]: sadiq_sons={"name1":"saddique","name2":"saeed","name3":"shakeel"}
```

```
In [5]: sadiq_sons
```

```
Out[5]: {'name1': 'saddique', 'name2': 'saeed', 'name3': 'shakeel'}
```

```
In [7]: sadiq_sons["name2"]
```

```
Out[7]: 'saeed'
```

```
In [8]: saeed={"name":"saeed","age":20,"addres":"lodhran","email":"ranasaeedrs466@gmail.com"}
```

```
In [9]: saeed
```

```
Out[9]: {'name': 'saeed',  
        'age': 20,  
        'addres': 'lodhran',  
        'email': 'ranasaeedrs466@gmail.com'}
```

```
In [10]: saeed["email"]
```

```
Out[10]: 'ranasaeedrs466@gmail.com'
```

## Adding value in Dictionary

```
In [11]: saeed
```

```
Out[11]: {'name': 'saeed',  
        'age': 20,  
        'addres': 'lodhran',  
        'email': 'ranasaeedrs466@gmail.com'}
```

```
In [16]: saeed["class"] = "mcs"
```

```
In [17]: saeed
```

```
Out[17]: {'name': 'saeed',  
        'age': 20,  
        'addres': 'lodhran',  
        'email': 'ranasaeedrs466@gmail.com',  
        'class': 'mcs'}
```

```
In [18]: saeed["ai"]="faisalabad"
```

```
In [19]: saeed
```

```
Out[19]: {'name': 'saeed',  
          'age': 20,  
          'addres': 'lodhran',  
          'email': 'ranasaeedrs466@gmail.com',  
          'class': 'mcs',  
          'ai': 'faisalabad'}
```

## Update a key value in dictionary

```
In [20]: saeed
```

```
Out[20]: {'name': 'saeed',  
          'age': 20,  
          'addres': 'lodhran',  
          'email': 'ranasaeedrs466@gmail.com',  
          'class': 'mcs',  
          'ai': 'faisalabad'}
```

```
In [21]: saeed["class"]="mastre in computer science"
```

```
In [22]: saeed
```

```
Out[22]: {'name': 'saeed',  
          'age': 20,  
          'addres': 'lodhran',  
          'email': 'ranasaeedrs466@gmail.com',  
          'class': 'mastre in computer science',  
          'ai': 'faisalabad'}
```

## ACCESS VALUE IN DICTIONARY

```
In [23]: saeed
```

```
Out[23]: {'name': 'saeed',  
          'age': 20,  
          'addres': 'lodhran',  
          'email': 'ranasaeedrs466@gmail.com',  
          'class': 'mastre in computer science',  
          'ai': 'faisalabad'}
```

```
In [24]: saeed["class"]
```

```
Out[24]: 'mastre in computer science'
```

```
In [25]: saeed["ai"]
```

```
Out[25]: 'faisalabad'
```

```
In [26]: sadiq_sons
```

```
Out[26]: {'name1': 'saddique', 'name2': 'saeed', 'name3': 'shakeel'}
```

```
In [28]: sadiq_sons["name2"]="saeed"
```

```
In [29]: sadiq_sons
```

```
Out[29]: {'name1': 'saddique', 'name2': 'saeed', 'name3': 'shakeel'}
```

```
In [30]: sadiq_sons["name3"]
```

```
Out[30]: 'shakeel'
```

## DELETING A VALUE

```
In [31]: del sadiq_sons["name2"]
```

```
In [32]: sadiq_sons
```

```
Out[32]: {'name1': 'saddique', 'name3': 'shakeel'}
```

```
In [33]: del saeed["email"]
```

```
In [34]: saeed
```

```
Out[34]: {'name': 'saeed',  
          'age': 20,  
          'addres': 'lodhran',  
          'class': 'mastre in computer science',  
          'ai': 'faisalabad'}
```

## LENGTH OF DICTIONARY

```
In [36]: saeed
```

```
Out[36]: {'name': 'saeed',  
          'age': 20,  
          'addres': 'lodhran',  
          'class': 'mastre in computer science',  
          'ai': 'faisalabad'}
```

```
In [37]: len(saeed)
```

```
Out[37]: 5
```

```
In [38]: len(sadiq_sons)
```

```
Out[38]: 2
```

## we can know that following key are in dictionary or not

```
In [39]: saeed
```

```
Out[39]: {'name': 'saeed',  
          'age': 20,  
          'addres': 'lodhran',  
          'class': 'mastre in computer science',  
          'ai': 'faisalabad'}
```

```
In [40]: "ai" in saeed
```

```
Out[40]: True
```

```
In [41]: "rana" in saeed
```

```
Out[41]: False
```

```
In [42]: # NOTE:  
         #   in dictionary the key and value should be integer,float,& string.
```

```
In [43]: saeed[77]="ARTIFICIAL INTELLIGENCE"
```

```
In [44]: saeed
```

```
Out[44]: {'name': 'saeed',  
          'age': 20,  
          'addres': 'lodhran',  
          'class': 'mastre in computer science',  
          'ai': 'faisalabad',  
          77: 'ARTIFICIAL INTELLIGENCE'}
```

```
In [50]: saeed["roll no"]=77,34
```

```
In [48]: saeed
```

```
Out[48]: {'name': 'saeed',  
          'age': 20,  
          'addres': 'lodhran',  
          'class': 'mastre in computer science',  
          'ai': 'faisalabad',  
          77: 'ARTIFICIAL INTELLIGENCE',  
          'roll no': (77, 34)}
```

```
In [52]: saeed["roll no"]=76451,34
```

In [53]: saeed

```
Out[53]: {'name': 'saeed',  
          'age': 20,  
          'address': 'lodhran',  
          'class': 'master in computer science',  
          'ai': 'faisalabad',  
          77: 'ARTIFICIAL INTELLIGENCE',  
          'roll no': (76451, 34)}
```

In [ ]: