

Dictionary in Python

By Sudhanshi

```
In [2]: capital={"India":"New Delhi","Afghanistan":"Kabul","Argentina":"Buenos Aires","Ireland":"Dublin","Jordan":"Amman","USA":"Washington DC"}

In [3]: type(capital)

Out[3]: dict

In [4]: capital.values()

Out[4]: dict_values(['New Delhi', 'Kabul', 'Buenos Aires', 'Dublin', 'Amman', 'Washington DC'])

In [5]: capital.keys()

Out[5]: dict_keys(['India', 'Afghanistan', 'Argentina', 'Ireland', 'Jordan', 'USA'])
```

Note 1: Keys are case sensitive

```
In [6]: capital["ireland"]

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KeyError                                Traceback (most recent call last)
<ipython-input-6-6e61b682d527> in <module>
----> 1 capital["ireland"]

KeyError: 'ireland'

In [7]: capital["Ireland"]

Out[7]: 'Dublin'
```

Note 2:Dictionary doesn't allow the duplicate keys

```
In [8]: dict_1={101:["Aman",26,"Wipro"],102:["Julie",29,"Infosys"],103:["Naina",32,"Deloite"],102:["Prashashti",26,"Accenture"]}

In [9]: print(dict_1)

{101: ['Aman', 26, 'Wipro'], 102: ['Prashashti', 26, 'Accenture'], 103: ['Naina', 32, 'Deloite']}
```

Note3: Accessing Values in Dictionary

```
In [10]: Employee_data = { 101:['Shiva', 24, 'Content Strategist'] ,102:['Udit',25,'Content Strategist'], 103:['Sonam', 28,'Data Analyst'], 104:['Ansari',29,'Product Lead' ],105:['Huzefa',30,'Data Analyst']}

In [11]: print(Employee_data[103][2])

Data Analyst

In [12]: Employee_data[113]

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KeyError                                Traceback (most recent call last)
<ipython-input-12-050bda43fabd> in <module>
----> 1 Employee_data[113]

KeyError: 113

In [13]: if 104 in Employee_data.keys():
          print("Yes")
        else:
          print("NA")

Yes

In [14]: 104 in Employee_data

Out[14]: True
```

Note 4: We should use Round Brackets/Paranthesis while accessing value from Dictionary

```
In [15]: Data={"Name":"Naveen","Age":32,"Skills":["Python","Java","SQL"]}

In [16]: Data.get("Skills")

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TypeError                                Traceback (most recent call last)
<ipython-input-16-4bda306ebf8c> in <module>
----> 1 Data.get("Skills")

TypeError: 'builtin_function_or_method' object is not subscriptable

In [17]: Data.get("Skills")

Out[17]: ['Python', 'Java', 'SQL']
```

Built-in-Methods of Dictionary

Sorted()method

```
In [18]: data = { 101:['Shiva', 24, 'Content Strategist'] ,102:['Udit',25,'Content Strategist'], 103:['Sonam', 28,'Sr Manager'], 104:['Ansari',29,'Product Lead']}

In [19]: sorted(data.keys())

Out[19]: [101, 102, 103, 104]

In [20]: sorted(data.values())

Out[20]: [['Ansari', 29, 'Product Lead'],
          ['Shiva', 24, 'Content Strategist'],
          ['Sonam', 28, 'Sr Manager'],
          ['Udit', 25, 'Content Strategist']]

In [21]: sorted(data.values() , reverse= True)

Out[21]: [['Udit', 25, 'Content Strategist'],
          ['Sonam', 28, 'Sr Manager'],
          ['Shiva', 24, 'Content Strategist'],
          ['Ansari', 29, 'Product Lead']]
```

Update() method

```
In [22]: Basket={"Fruit":["Apple","Mango","Grapes"],"Vegetables":["Tomato","Potato","Cabbage"]}

In [23]: Basket["Dairy_Products"]="Milk","Cheese"

In [24]: print(Basket)

{'Fruit': ['Apple', 'Mango', 'Grapes'], 'Vegetables': ['Tomato', 'Potato', 'Cabbage'], 'Dairy_Products': ('Milk', 'Cheese')}
```

Changes value in Dictionary

```
In [25]: x={"Name":"Harry","Age":22,"Business":"Retail"}

In [26]: x["Business"]="Trade"

In [27]: print(x)

{'Name': 'Harry', 'Age': 22, 'Business': 'Trade'}
```

Pop() method

```
In [28]: x={"Name":"Harry","Age":22,"Business":"Retail"}

In [29]: x.pop("Age")

Out[29]: 22

In [30]: print(x)

{'Name': 'Harry', 'Business': 'Retail'}

In [31]: x.popitem()

Out[31]: ('Business', 'Retail')

In [32]: print(x)

{'Name': 'Harry'}
```

Delete method

```
In [33]: x={"Name":"Harry","Age":22,"Business":"Retail"}

In [34]: del x

In [35]: x

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NameError                                Traceback (most recent call last)
<ipython-input-35-6fcf9dfbd479> in <module>
----> 1 x

NameError: name 'x' is not defined
```

Clear method

```
In [36]: capital={"India":"New Delhi","Afghanistan":"Kabul","Argentina":"Buenos Aires","Ireland":"Dublin"}

In [37]: capital.clear()

In [38]: capital

Out[38]: {}

In [ ]:
```