

Day 10 Final

Creating a Dictionary

```
In [6]: dict = {  
    "ID": "1234AB",  
    "color": "Black",  
    "year": 1964  
}  
print(dict)
```

{'ID': '1234AB', 'color': 'Black', 'year': 1964}

Dictionary items are ordered

```
In [7]: dict = {  
    "ID": "1234AB",  
    "color": "Black",  
    "year": 1964  
}  
print(dict['color'])
```

Black

Duplicates Not Allowed

```
In [10]: dict = {  
    "ID": "1234AB",  
    "color": "Black",  
    "year": 1964,  
    "year": 2000  
}  
print(dict)
```

{'ID': '1234AB', 'color': 'Black', 'year': 2000}

Dictionary Length

```
In [12]: dict = {  
    "ID": "1234AB",  
    "color": "Black",  
    "year": 1964,  
    }  
print(len(dict))
```

3

Dictionary Items - Data Types

The values in dictionary items can be of any data type:

```
In [15]: dict = {  
    "ID": "1234AB",  
    "color": "Black",  
    "year": 1964,  
    'a': [1, 2, 3, 4, 5],  
    'b': (2.1, 2.2, 2.3, 2.4),  
    'c': False}  
print(dict)  
print(type(dict))
```

```
{'ID': '1234AB', 'color': 'Black', 'year': 1964, 'a': [1, 2, 3, 4, 5], 'b':  
(2.1, 2.2, 2.3, 2.4), 'c': False}  
<class 'dict'>
```

The dict() Constructor

```
In [1]: a = dict(name = "priya", age = 26, country = "India")  
print(a)
```

```
{'name': 'priya', 'age': 26, 'country': 'India'}
```

Accessing Items

```
In [3]: a = {"name" : "priya", "age" : 26, "country" : "India"}  
print(a["name"])
```

priya

```
In [5]: a = {"name" : "priya", "age" : 26, "country" : "India"}  
print(a.get("name"))
```

priya

Get Keys

```
In [8]: a = {"name" : "priya", "age" : 26, "country" : "India"}
```

```
In [6]: x = a.keys()
```

```
In [7]: x
```

```
Out[7]: dict_keys(['name', 'age', 'country'])
```

Get Values

```
In [9]: a = {"name" : "priya", "age" : 26, "country" : "India"}
```

```
In [10]: y = a.values()
```

```
In [11]: y
```

```
Out[11]: dict_values(['priya', 26, 'India'])
```

Change Values

```
In [12]: a = {"name" : "priya",  
             "age" : 26,  
             "country" : "India"}  
a['age'] = 28  
print(a)
```

```
{'name': 'priya', 'age': 28, 'country': 'India'}
```

Adding Items

```
In [13]: a = {"name" : "priya",  
             "age" : 26,  
             "country" : "India",  
             "gender": "female"}  
a['age'] = 28  
print(a)
```

```
{'name': 'priya', 'age': 28, 'country': 'India', 'gender': 'female'}
```

update method()

```
In [14]: a = {"name" : "priya",  
            "age" : 26,  
            "country" : "India",  
            "gender": "female"}  
a.update({"mail id": "priya@gmail.com"})  
print(a)
```

```
{'name': 'priya', 'age': 26, 'country': 'India', 'gender': 'female', 'mail i  
d': 'priya@gmail.com'}
```

Remove items

The pop() method removes the item with the specified key name:

```
In [15]: a = {"name" : "priya",  
            "age" : 26,  
            "country" : "India",  
            "gender": "female"}  
a.pop("age")  
print(a)
```

```
{'name': 'priya', 'country': 'India', 'gender': 'female'}
```

The del keyword removes the item with the specified key name:

```
In [16]: a = {"name" : "priya",  
            "age" : 26,  
            "country" : "India",  
            "gender": "female"}  
del a["age"]  
print(a)
```

```
{'name': 'priya', 'country': 'India', 'gender': 'female'}
```

```
In [17]: a = {"name" : "priya",
            "age" : 26,
            "country" : "India",
            "gender":"female"}
del a
print(a)
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_8864\4207728185.py in <module>
      4     "gender":"female"}
      5 del a
----> 6 print(a)

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

The clear() method empties the dictionary

```
In [19]: a = {"name" : "priya",
            "age" : 26,
            "country" : "India",
            "gender":"female"}
a.clear()
print(a)
print(type(a))
```

```
{}
```

```
<class 'dict'>
```

Write a Python script to concatenate the following dictionaries to create a new one.

```
In [20]: dic1={1:10, 2:20}
dic2={3:30, 4:40}
dic3={5:50,6:60}
dic4 = {}
for d in (dic1, dic2, dic3): dic4.update(d)
print(dic4)
```

```
{1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
```

Write a Python program to print a dictionary in table format.

```
In [21]: my_dict = {'C1':[1,2,3], 'C2':[5,6,7], 'C3':[9,10,11]}
for row in zip(*([key] + (value) for key, value in sorted(my_dict.items()))):
    print(*row)
```

```
C1 C2 C3
1 5 9
2 6 10
3 7 11
```

Print a dictionary where the keys are numbers between 1 and 15 and the values are square of keys

```
In [22]: d=dict()
for x in range(1,16):
    d[x]=x**2
print(d)
```

```
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144, 13: 169, 14: 196, 15: 225}
```

Check whether a given key already exists in a dictionary

```
In [24]: d = {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
def is_key_present(x):
    if x in d:
        print('Key is present in the dictionary')
    else:
        print('Key is not present in the dictionary')
is_key_present(5)
is_key_present(9)
```

```
Key is present in the dictionary
Key is not present in the dictionary
```

```
In [25]: is_key_present(5)
```

```
Key is present in the dictionary
```

```
In [ ]:
```