
15.Dictionary

1. Create a Dictionary with at least 5 key value pairs of the Student ID and Name
 - 1.1. Adding the values in dictionary
 - 1.2. Updating the values in dictionary
 - 1.3. Accessing the value in dictionary
 - 1.4. Create a nested loop dictionary
 - 1.5. Access the values of nested loop dictionary
 - 1.6. Print the keys present in a particular dictionary
 - 1.7. Delete a value from a dictionary



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1st program...

```
student_dict = {  
    "123456789": "John Doe",  
    "987654321": "Jane Doe",  
    "012345678": "Peter Smith",  
    "876543210": "Susan Jones",  
    "765432108": "Michael Brown",  
    "456789123": "David Johnson"  
}
```

```
print(student_dict)
```

```
{'123456789': 'John Doe', '987654321': 'Jane Doe', '012345678': 'Peter Smith', '876543210': 'Susan Jones',
```

```
# 1.1st program...  
# Create a dictionary  
dict = {'name': 'John Doe', 'age': 30}  
  
# Add a new key-value pair  
dict['address'] = '123 Main Street'  
  
print(dict)
```

 {'name': 'John Doe', 'age': 30, 'address': '123 Main Street'}



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1.2st program...

```
student_dict = {  
    "123456789": "John Doe",  
    "987654321": "Jane Doe",  
    "012345678": "Peter Smith",  
    "876543210": "Susan Jones",  
    "765432108": "David Brown"  
}
```

Update the value for student ID 123456789

```
student_dict["123456789"] = "Jane Doe"
```

```
print(student_dict)
```

```
{'123456789': 'Jane Doe', '987654321': 'Jane Doe', '012345678': 'Peter Smith', '876543210': 'Susan Jones',
```



RAM



Disk



1.3rd program...

student_dict = {

"123456789": "John Doe",

"987654321": "Jane Doe",

"012345678": "Peter Smith",

"876543210": "Susan Jones",

"765432108": "David Brown"

}

print(student_dict["123456789"])



John Doe



main.py

Shell



```
1  # 1.4th program...
2  student_dict = {
3      "123456": "John Doe",
4      "234567": "Jane Doe",
5      "345678": "Peter Smith",
6      "456789": "Susan Jones",
7      "567890": "David Brown"
8  }
9
10 nested_student_dict = {
11     "class_1": {
12         "student_1": "John Doe",
13         "student_2": "Jane Doe"
14     },
15     "class_2": {
16         "student_3": "Peter Smith",
17         "student_4": "Susan Jones"
18     },
19     "class_3": {
20         "student_5": "David Brown"
21     }
22 }
23
24 print(nested_student_dict)
25
```



main.py

Shell



```
{'class_1': {'student_1': 'John Doe',  
            'student_2': 'Jane Doe'}, 'class_2':  
{'student_3': 'Peter Smith', 'student_4':  
'Susan Jones'}, 'class_3': {'student_5':  
'David Brown'}}
```

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1.5th program...

```
student_dict = {  
    "123456789": {"Name": "John Doe", "Age": 20},  
    "987654321": {"Name": "Jane Doe", "Age": 18},  
    "012345678": {"Name": "Peter Smith", "Age": 21},  
    "876543210": {"Name": "Susan Jones", "Age": 19},  
    "765432108": {"Name": "David Brown", "Age": 22}  
}  
  
# Access the values of the dictionary  
for student_id, student_info in student_dict.items():  
    for key, value in student_info.items():  
        print(f"{key}: {value}")
```



```
Name: John Doe  
Age: 20  
Name: Jane Doe  
Age: 18  
Name: Peter Smith  
Age: 21  
Name: Susan Jones  
Age: 19  
Name: David Brown  
Age: 22
```




main.py

Shell



```
1  # 1.6th program...
2  student_dict = {
3      "123456789": "John Doe",
4      "987654321": "Jane Doe",
5      "012345678": "Peter Smith",
6      "876543210": "Susan Jones",
7      "765432108": "David Brown",
8      "456789123": "Kate Williams"
9  }
10
11  print("The keys in the dictionary are:")
12      )
13  print(student_dict.keys())
14
```



main.py

Shell



The keys in the dictionary are:

```
dict_keys(['123456789', '987654321',  
          '012345678', '876543210', '765432108',  
          '456789123'])
```

> |



main.py

Shell



```
1  # 1.7th program...
2  student_dict = {
3      "123456789": "John Doe",
4      "987654321": "Jane Doe",
5      "012345678": "Peter Smith",
6      "876543210": "Susan Jones",
7      "765432108": "David Brown"
8  }
9
10 del student_dict["123456789"]
11
12 print(student_dict)
13
```



main.py

Shell



```
{'987654321': 'Jane Doe', '012345678': 'Peter  
Smith', '876543210': 'Susan Jones',  
'765432108': 'David Brown'}
```

```
> |
```