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

dic1={1:10, 2:20} dic2={3:30, 4:40} dic3={5:50,6:60}

In [1]:
```
dic1 = {1:10, 2:20}
```

In [3]:
```
dic2 = {3:30, 4:40}
```

In [4]:
```
dic3 = {5:50, 6:60}
```

In [16]:
```
dic4 = {**dic1, **dic2, **dic3}
```

In [17]:
```
dic4
```

Out[17]:
```
{1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
```

2. Write a Python script to check if a given key already exists in a dictionary.

In [20]:
```
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(3)
is_key_present(7)
```

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

3. Write a Python program to get the maximum and minimum value in a dictionary.

In [105]:
```
w= {'a':1000, 'b':2000}

key = max(dict, key = w.get)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-105-738086aefb66> in <module>
      1 w= {'a':1000, 'b':2000}
      2
----> 3 key = max(dict, key = w.get)

TypeError: 'str' object is not callable
```

4. Write a Python program to check a dictionary is empty or not

In [106]:
```
b={"a":1, "c":2, "d":3}
```

In [108]:
```
c={}
```

In [114]:
```
if bool(c):
    print("Not Empty Dictionary")
else:
    print("Empty DIctionary")
```

```
Empty DIctionary
```

In [115]:
```
if bool(b):
    print("Not Empty Dictionary")
else:
    print("Empty DIctionary")
```

```
Not Empty Dictionary
```

5. Write a Python program to get the key, value and item in a dictionary.

In [116]:
```
a={1:1000, 2:2000}
```

In [117]:
```
b={}
```

In [118]:
```
if bool (a):
    print(a.keys())
    print(a.values())
else:
    print("Empty Dictionary")
```

```
dict_keys([1, 2])
dict_values([1000, 2000])
```

Nested Loop

In [23]:
```
d3= {'k1':[{'nest_key':['this is deep',['hello']]}]}
```

In [24]:
```
d3
```

Out[24]:
```
{'k1': [{'nest_key': ['this is deep', ['hello']]}]}
```

In [28]:
```
d3['k1'][0]
```

Out[28]:
```
{'nest_key': ['this is deep', ['hello']]}
```

In [29]:
```
d3['k1'][0]
```

Out[29]:
```
{'nest_key': ['this is deep', ['hello']]}
```

In [30]:
```
d3['k1'][0]['nest_key']
```

Out[30]:
```
['this is deep', ['hello']]
```

In [31]:
```
d3['k1'][0]['nest_key'][1]
```

Out[31]:
```
['hello']
```