Dictionaries

- A Dictionary is an unordered and indexed collection of changeable elements
- A Dictionary is created with curly braces with keys and values
```
dict1 = {"name": "Paul", "age": 25}
```
- A Dictionary can be created with a constructor
```
newdict = dict({name: "Paul", age: 25})
```
- A value in a Dictionary can be accessed by its key
```
x = dict1["name"]
x = dict1.get("name")
```
- Add or change a value in a Dictionary
```
dict1["class"] = "C1"
```
- Number of elements in the Dictionary
```
len(dict1)
```
- Remove an element from a Dictionary
```
dict1.pop("name")
del dict1["name"]
```
- Delete a Dictionary
```
del dict1
```
- Check if an element exists in a Dictionary
```
if "name" in dict1 :
   print("name is in the dictionary“)
```
- The elements of a Dictionary can be accessed with a for loop

keys
```
for key in dict1:
   print(key)
```

values
```
for key in dict1:
   print(dict1[key])
```

values
```
for value in dict1.values():
   print(value)
```

keys and values
```
for key,value in dict1.items():
   print(key,value)
```

Dictionaries

- Dictionary built-in methods:

dict1.clear()	Removes all the elements from the dictionary
dict1.copy()	Returns a copy of the dictionary
dict.fromkeys(keys,value)	Returns a dictionary with the keys and the same value
dict1.get(key)	Returns the value of the key
dict1.items()	Returns a List with the Tuples key,value
dict1.keys()	Returns a List with the keys
dict1.popitem()	Removes and returns the last inserted element
dict1.setdefault(key, value)	Returns the value of the key, if it exists, or inserts the key,value
dict1.update({key:value, …})	Updates the dictionary with the pairs key,value
dict1.values()	Returns a List of the values