Dictionary

A dictionary is a collection which is unordered,changaeble and indexed. In Python dictionaries are written with curly brackets, and they have keys and values. Duplicates are not allowed in dictionary. in python 3.7 i.e, the latest version dictionary are odered.

Mutable,
Indexing is there,
Duplicates are not allowed.

In [1]:
```
dictionary={}
```

In [2]:
```
type(dictionary)
```

Out[2]:
```
dict
```

In [3]:
```
dic={1,2,3,4,5}
```

In [4]:
```
type(dic)
```

Out[4]:
```
set
```

In [5]:
```
# Creating a dictionary

my_dict={"Car1":"Audi", "Car2":"BMW", "Car3":"Mercidies Benz"}
```

In [6]:
```
type(my_dict)
```

Out[6]:
```
dict
```

In [7]:
```
# Access the item values based on keys

my_dict['Car1']
```

Out[7]:
```
'Audi'
```

In [8]:
```
# We can even loop through the dict values

for x in my_dict:
    print(x)
```

```
Car1
Car2
Car3
```

In [9]:
```
for x in my_dict.values():
    print(x)
```

```
Audi
BMW
Mercidies Benz
```

In [10]:
```
# We can also check both keys and values
for x in my_dict.items():
    print(x)
```

```
('Car1', 'Audi')
('Car2', 'BMW')
('Car3', 'Mercidies Benz')
```

In [11]:
```
# Adding items in dictionaries

my_dict['Car4']="Audi 2.0"
```

In [12]:
```
my_dict
```

Out[12]:
```
{'Car1': 'Audi', 'Car2': 'BMW', 'Car3': 'Mercidies Benz', 'Car4': 'Audi 2.0'}
```

Nested Dictionary

In [13]:
```
car1_model={'Mercedies':1960}
car2_model={'Audi':1970}
car3_model={'Ambassador':1980}

car_type={'Car1':car1_model,'Car2':car2_model,'Car3':car3_model}
```

In [14]:
```
print(car_type)
```

```
{'Car1': {'Mercedies': 1960}, 'Car2': {'Audi': 1970}, 'Car3': {'Ambassador': 1980}}
```

In [15]:
```
# Accessing the items in the dictionary
print(car_type['Car1'])
```

```
{'Mercedies': 1960}
```

In [16]:
```
print(car_type['Car1']['Mercedies'])
```

```
1960
```