Python

Dictionaries

Data Types

Albert Zaqaryan Lesson 16

A dictionary is a collection which is unordered, changeable and indexed. In Python dictionaries are written with curly brackets, and they have keys and values.

```
thisdict = {‘name’:’Aram’, ‘year’: 1994}
print(thisdict)
```

key

keys

{‘name’:’Aram’, ‘year’: 1994}

‘name’ and ‘year’

value

values

{‘name’:’Aram’, ‘year’: 1994}

‘Aram’ and 1994

popitem()

change values

thisdict = {‘name’:’Aram’, ‘year’: 1994}

thisdict[‘year’] = 2014

len()

```
thisdict = {‘name’:’Aram’, ‘year’: 1994}
print(len(thisdict))
```

Adding items

```
thisdict = {‘name’:’Aram’, ‘year’: 1994}
thisdict[‘age’] = 26
```

```
thisdict = dict(brand="Ford",
model = "Mustang" ,  year = 1964)
```

Del item

```
thisdict = {‘name’:’Aram’, ‘year’: 1994}
del thisdict[‘year’]
```

Method	Description
clear()	Removes all the elements from the dictionary
copy()	Returns a copy of the dictionary
fromkeys()	Returns a dictionary with the specified keys and value
get()	Returns the value of the specified key
items()	Returns a list containing a tuple for each key value pair
keys()	Returns a list containing the dictionary's keys
pop()	Removes the element with the specified key
popitem()	Removes the last inserted key-value pair
setdefault()	Returns the value of the specified key. If the key does not exist: insert the key, with the specified value
update()	Updates the dictionary with the specified key-value pairs
values()	Returns a list of all the values in the dictionary

1.Write a Python program to sort a dictionary by value.

2. Write a Python program to add a key to a dictionary.

3. Write a Python program to check whether a given key already exists in a dictionary.

4.Write a Python program to merge two Python dictionaries.

dict1 = {'a': 50, 'b': 700}

dict2 = {'c': 400, 'd': 600}

output: {'a': 50, 'b': 700, 'c': 400, 'd': 600}

5. Write a Python program to multiply all the values in a dictionary.
For example:
mydict = {'a':1,'b':2,'c':12} output: 24

6. Create a Python program to find the highest 3 values in a dictionary.
{'D': 56, 'E': 12, 'F': 69, 'C': 45, 'B': 23, 'A': 67}
output: {'F': 69, 'A': 67, 'D': 56}