

# Μάθημα 5.

## Λεξικά

### (dictionaries)

## 5.1 Ορισμός λεξικού, παράδειγμα

$d = \{\text{κλειδί} : \text{τιμή}, \dots\}$

```
>>> epafes = { "Νίκος" : 777888, "Μαρία" : 666544, "Κατερίνα" : 444333 }
>>> epafes["Νίκος"]
777888
>>> epafes["Μαρία"] = 666222
>>> epafes
{'Νίκος': 777888, 'Μαρία': 666222, 'Κατερίνα': 444333}
```

5.2 Τα κλειδιά πρέπει να είναι μοναδικά  
- επιτρέπονται αμετάβλητοι τύποι  
δεδομένων: αριθμοί, string, tuples, όχι  
list, dictionaries

```
>>> nobel_prize_winners = { (1979, "physics"): ["Glashow", "Salam",  
"Weinberg"], (1962, "chemistry"): ["Hodgkin"], (1984, "biology"): ["  
McClintock"] }  
>>> nobel_prize_winners[(1979, "physics")]  
['Glashow', 'Salam', 'Weinberg']
```

## 5.3 Μέθοδοι λεξικών

d.keys(), d.values(), d.items()

```
>>> a= { 1: "hydrogen", 6: "carbon", 7: "nitrogen", 8: "oxygen"}
>>> a.keys()
dict_keys([1, 6, 7, 8])
>>> a.values()
dict_values(['hydrogen', 'carbon', 'nitrogen', 'oxygen'])
>>> a.items()
dict_items([(1, 'hydrogen'), (6, 'carbon'), (7, 'nitrogen'), (8, 'oxygen')])
```

## 5.3 Εισαγωγή - διαγραφή στοιχείων

```
>>> a.update( {"P": "phosphorous", "S": "sulfur"} )
>>> a
{1: 'hydrogen', 6: 'carbon', 7: 'nitrogen', 8: 'oxygen', 'P': 'phosphorous', 'S': 'sulfur'}
>>> a["P"] = "Phosphorous"
>>> a
{1: 'hydrogen', 6: 'carbon', 7: 'nitrogen', 8: 'oxygen', 'P': 'Phosphorous', 'S': 'sulfur'}
>>> del a["S"]
>>> a
{1: 'hydrogen', 6: 'carbon', 7: 'nitrogen', 8: 'oxygen', 'P': 'Phosphorous'}
```