

Ling 555 — Programming for Linguists

Python — Dictionaries

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Escaping string

Homework questions

[hmwk2](#)

Miscellaneous tips

Dictionary basics

Dictionary methods

```
escaped="Before adding text to SQL
databases, all single '\\' and
double quote '\"' characters
(as well as the backslash
character '\\' itself) must be
escaped with the backslash
'\\' character."
```

```
print escaped
```

```
#OR
```

```
escaped=r"Before adding text to SQL
databases, all single '\\' and
double quote '\"' characters (as
well as the backslash character \\
itself) must be escaped with the
backslash '\\\' character."
```

Sorting lists and tuples

Homework
questions

Miscellaneous
tips

sorting

importing

Dictionary
basics

Dictionary
methods

Tip:

You can sort a list of tuples. The sorting will be done first by the first element of the tuple, and then by the second element

Example

```
lot=[(1,2), (2,1), (4,3), (2,2),  
      (3,2), (1,1), ("3","a")]  
lot.sort()  
# OR, to create a new list  
lot_sorted=sorted(lot)
```

More on sorting at:

<http://wiki.python.org/moin/HowTo/Sorting>

Mixing interactive and non-interactive

Tip

You can mix an interactive and non-interactive session.

Script File:

```
#!/usr/bin/env python  
gradebook=dict()
```

Interactive:

```
from hmwk4.py import *  
type(gradebook)
```

Homework
questions

Miscellaneous
tips

sorting

importing

Dictionary
basics

Dictionary
methods

String formatting

Homework
questions

Miscellaneous
tips

Dictionary
basics

string

dol,lod, etc.

Dictionary
methods

Definition

You can use dictionary keys in string formatting.

practice

Create a new dictionary called phonebook, and store your phone number in it.

- 1 Print out your name and number using the dictionary style syntax

```
phonebook=dict()  
phonebook['rob']='555-6785'  
print('Rob: %(rob)s' % phonebook)
```

Homework
questions

Miscellaneous
tips

Dictionary
basics

string

dol,lod, etc.

Dictionary
methods

Dictionaries of lists et al.

We already knew about lists of lists. Now we can also do:

Lists of dictionaries `lod[4]['number']`

Dictionaries of dictionaries

`dod['four']['number']`

Dictionaries of lists `lod['four'][4]`

And any other combination, e.g. lolod, lodod, dodol, dododolod

Homework questions

Miscellaneous tips

Dictionary basics

string

dol,lod, etc.

Dictionary methods

Practice

- 1 Construct a class database. For each person, include their nickname and favorite color.

```
theclass=dict()
theclass['robfelty']={'nickname':
'rob', 'color': 'forest green'}
theclass['mabdulma']={'nickname':
'Muhammad', 'color': 'orange'}
theclass['djefford']={'nickname':
'Dustin', 'color': 'red'}
```

- 2 Print out the favorite color for one person
`print(theclass['robfelty']['color'])`

Homework
questions

Miscellaneous
tips

Dictionary
basics

Dictionary
methods

keys

items

other methods

practice

- 1 Print the keys from the class database
`print(theclass.keys())`
- 2 Sort the keys from the class database
`theclaskeys=theclass.keys()`
`theclaskeys.sort()`
- 3 Print just the values from the class database
`print(theclass.values())`

Homework
questions

Miscellaneous
tips

Dictionary
basics

Dictionary
methods

keys

items

other methods

practice

- 1 Convert the dictionary into a list
`theclasslist=theclass.items()`
- 2 Print out the class database, sorted by username.
`theclasslist.sort()`
`print(theclasslist)`

other methods

**Homework
questions**

**Miscellaneous
tips**

**Dictionary
basics**

**Dictionary
methods**

keys

items

other methods

questions?

Any questions on other dictionary methods the book mentions?