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Class 2 (collections and functional programming)

Nov. 20, 2015

Contents

* Collections
  + Lists, Set, Tuples
  + Dicts
  + Strings (unicode vs byte)
* Functional programming intro
  + Map and reduce
  + Functions as first class objects
  + List and dict comprehensions

Pre-class mandatory readings

* Chapters 3 and 4 from [Dive into Python 3](http://www.diveintopython3.net/)
* Chapters 12 [A Byte of Python](http://www.swaroopch.com/notes/python/).
* Chapters 4, 5 and 6 from [Automate the Boring Stuff with Python](https://automatetheboringstuff.com/).

Optional (expanded) readings

* Chapters 10 (Lists), 11(Dictionaries), 12 (Tuples) from [Think Python](http://www.greenteapress.com/thinkpython/html/index.html).

Group exercise

**coming soon**

Assignments

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| #1 | [Divisible numbers comprehension](https://sis.rmotr.com/assignments/12?next=/courses/lectures/23) | Easy | **comprehensions** **divisible** | 0 attempts | Pending | [Attempt to solve](https://sis.rmotr.com/assignments/12?next=/courses/lectures/23) |
| #2 | [Divisible numbers comprehension with multiple terms](https://sis.rmotr.com/assignments/13?next=/courses/lectures/23) | Easy | **comprehensions** **divisible** | 0 attempts | Pending | [Attempt to solve](https://sis.rmotr.com/assignments/13?next=/courses/lectures/23) |
| #3 | [Even numbers using list comprehensions](https://sis.rmotr.com/assignments/14?next=/courses/lectures/23) | Easy | **comprehensions** **evens** | 0 attempts | Pending | [Attempt to solve](https://sis.rmotr.com/assignments/14?next=/courses/lectures/23) |
| #4 | [Initialize a dictionary from a list using dict Comprehensions](https://sis.rmotr.com/assignments/16?next=/courses/lectures/23) | Easy | **initializedict-comprehensions** | 0 attempts | Pending | [Attempt to solve](https://sis.rmotr.com/assignments/16?next=/courses/lectures/23) |
| #5 | [Print all the elements in a list using List Comprehensions](https://sis.rmotr.com/assignments/17?next=/courses/lectures/23) | Easy | **comprehensions** **listsprint** | 0 attempts | Pending | [Attempt to solve](https://sis.rmotr.com/assignments/17?next=/courses/lectures/23) |
| #6 | [Square list elements using List Comprehensions](https://sis.rmotr.com/assignments/18?next=/courses/lectures/23) | Easy | **comprehensions** **squarelists** | 0 attempts | Pending | [Attempt to solve](https://sis.rmotr.com/assignments/18?next=/courses/lectures/23) |
| #7 | [Temperature Convertion Using a list comprehensions](https://sis.rmotr.com/assignments/19?next=/courses/lectures/23) | Easy | **comprehensions** **fahrenheittemperature** | 0 attempts | Pending | [Attempt to solve](https://sis.rmotr.com/assignments/19?next=/courses/lectures/23) |
| #8 | [Functional factorial](https://sis.rmotr.com/assignments/40?next=/courses/lectures/23) | Easy | **comprehensions** **rangefactorial** **reducefunctional** | 0 attempts | Pending | [Attempt to solve](https://sis.rmotr.com/assignments/40?next=/courses/lectures/23) |