Reading: Welcome to Python Data Structures

Welcome to Python Data Structures, the second class in our Python for Everybody Specialization. We have built these classes specifically for those with no prior programming experience. With a relatively simple book, and basic exercises that focus on the core concepts of programming, we hope that you will have a solid understanding of the topics in this course and be well prepared to take the rest of the courses in the specialization.

We assume that you have completed the previous course in the sequence before starting this class. If you find yourself needing some review, please go back and review the material in [Getting Started with Python](https://www.coursera.org/learn/python/).

We expect that someone who has the necessary background will take between 2 and 6 weeks to complete the course, depending on prior skill level in programming. Please take your time and learn these concepts well, as there is little value rushing towards the later classes in our specialization without proper preparation.

# Textbook

Printed copies of **"Python for Everybody: Exploring Data In Python 3"** are available for $10 or less from Amazon and $2 or less on Kindle:

* [Amazon](http://amzn.to/2qoV6Pq) / [Kindle](http://amzn.to/2pn6Pj0)

Here are **free** copies of the book in various formats available at:

* <https://www.py4e.com/book>

You can download all of the sample Python code from the book as well as licensed course materials from <http://www.py4e.com/materials>.

This course is in Python 3 and the textbook for this class is in Python 3. Prior to July 2017, this course was taught in Python 2 with the textbook **"Python for Informatics: Exploring Information".** This earlier Python 2 book has translations into Spanish, Korean, and Chinese. The Python 2 book and its translations are still available at the [www.pythonlearn.com](http://www.pythonlearn.com/book.php#python-for-informatics) web site.

All of the book materials are available under a Creative Commons Attribution-NonCommercial 3.0 Unported License. The slides, audio, assignments, auto grader and all course materials other than the book are available from <http://www.py4e.com/materials> under the more flexible Creative Commons Attribution 3.0 Unported License. If you are curious as to why the "NC" variant of Creative Commons was used, see Appendix D of the textbook or search through my [blog posts](http://www.dr-chuck.com/csev-blog/2013/09/proposed-copyright-text-for-my-next-book/) for the string "copyright".

Welcome to Python 3

As of June 2017, the course is taught using Python 3. The Python community has been moving from Python 2 to Python 3 for a long time and we felt that it was time to convert our course. In a beginning course and this specialization, the differences between the two versions of Python are pretty minimal.

The **print** statement has become the print function. What this means is that this line in Python 2:

print "hello world"

is as follows in Python 3:

print("hello world")

The **raw\_input** function has also changed to **input**, so instead of:

raw\_input('What is your name?')

you will see:

input('What is your name?')

The only other significant change is how Python handles various character sets like (次 - Tsugi) and (코스 - Koseu). You will learn more about this in the third and fourth classes in the specialization.

You might find that your job still wants to use Python 2. We believe that going from Python 3 to Python 2 is pretty easy - so don't worry too much about the version of Python that you learn when you are first starting out.

If you want to see the Python 2 materials and text book from the previous version of the course, an archive of that material continues to be available at <http://www.pythonlearn.com/>.

# Notice for Auditing Learners: Assignment Submission

**Please note:** only verified learners can submit assignments. If you are auditing this course, you will be able to go through the quizzes or assignments, but you will not be able to submit your assignment for a grade. If you wish to have your assignments graded and receive a course certificate, we encourage you to upgrade to the Certified Learner track for this course. Coursera has provided [information about purchasing a certificate](https://learner.coursera.help/hc/en-us/articles/208280146-Pay-for-a-course-or-Specialization), and you can also get help from the [Coursera Help Center.](https://learner.coursera.help/hc/en-us)

Week 02

Important Reading: Using Python in this Class

We strongly encourage you to install Python on your computer if you have a desktop or laptop. There are even some Python applications available for iPhone and Android phones.

But if you do not have a computer where you can install Python, you can still complete this class because we have a version of Python that runs in your browser that is sufficient to do the assignments for this class.

You will see various links that allow you to develop, turn in and auto-grade each of the programming assignments throughout the class. You can also use the ["Python Playground"](https://www.coursera.org/learn/python/ungradedLti/LqMCR/python-code-playground) to experiment with writing your own Python applications using only your browser.

We feel that you learn the most if you develop your applications using the actual Python environment and then use our browser-based system to turn in your applications after they are completed. But we do understand that not everyone can install Python on their computers.

This is the last course in our "Python for Everybody" specialization before you are required to use Python to run your programs. You can complete **this** course without a desktop or laptop computer but for the **next** course in the specialization, you will be required to install and use Python on your own computer as the assignments become more complex.

None of the videos or assignments are required in this week. So don't worry about getting all the "check boxes" or completing the progress bar for this week. Simply use what you want and need to use

# Notes on Choice of Text Editor

We recommend that you use the Atom text editor for this course. We prefer it because it works the same on Windows, Macintosh, and Linux. All of the course demonstration videos use Atom. You can download and install it from: <https://atom.io/>

If you do use Atom, be aware that user input is not supported when scripts are run from the editor rather than the command line.

If you already have a text editor like TextWrangler/BBEdit on the Macintosh and NotePad++ on Windows they can be used for this course. Of course you can use any text editor or IDE that you like. If you install Python using the Anaconda distribution, which also includes many science and data analysis libraries, you can use the Spyder development environment to edit and run your Python programs. If you already use Eclipse for Java development, you might want to look at PyDev, a Python IDE that runs on top of Eclipse.

# Where is the 7.2 worked exercise?

As the course progresses, we stop providing worked exercise videos for every assignment. Here in Chapter 7, we provide a video of a worked exercise that is \*similar\* to the assigned exercise. All this is designed to get you to the point where you are solving the problems on your own without just watching a video and doing what the video does.

If you have trouble completing the assignment on your own, relax and take your time. You might find it helpful to go back to the lectures or even re-do the earlier problems. One way or another don't just look for the "easy" way out on this assignment. Take this as a "challenge" to make sure to test your learning.