**C996 PROGRAMMING IN PYTHON TIP SHEET**

*C996 is a fun course based on the Python language when used as a tool to aid the domain of data analysis. The pacing guide includes a week for the Performance Assessment.*

**Python**

Download Python version 3.x from <https://www.python.org/>.

The first part of the assessment requires a Python script that extracts web links from the *Current Estimates* web page of the U.S. Census Bureau and outputs those links in a CSV file in an absolute and non-duplicated format. This is the main URL you can navigate from: [*https://www.census.gov/programs-surveys/popest.html*](https://www.census.gov/programs-surveys/popest.html)

Make sure that you extract ALL unique URLs and produce a CSV file to include in your project submission. Make sure you handle trailing symbols in your Python script; if you have these URLs, your output is NOT unique: *ask.census.gov* and *ask.census.gov/*, or *www.commerce.gov* and *www.commerce.gov/*.

All links should be in an **absolute** format. They may be prefixed by *‘http://’* or ‘*https://’*, but they do not have to.

As the Current Estimates web site is a living document and subject to change, the number of unique links will vary. Include the output of your Python scraper based on the extraction of links on the day of the submission.

The task asks you to **only** extracts links that point to **other HTML pages**. Please ensure that links to PDF, Excel or other documents of the be are not included in the output file.

Please provide detailed explanations that relate to the ask prompts and provide the **Python code segments** that are used to accomplish the actions that are being explained. Explain the use of Python libraries and modules as relevant.

**Students are finding the following very helpful**

1. Free Python Course from uDacity: [Introduction to Python](https://www.udacity.com/course/introduction-to-python--ud1110)
2. [Powerful Oracle 12c SQL Features Webinar](https://www.youtube.com/watch?v=aQG6eZeCIy8)

# **Videos!**

**Take 5 Videos. Two On Python.**

* How to Write to a CSV file using Python!     <https://wgu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=45c6cc9e-f993-4580-a046-a8a701005b7d>

Install and Verify Python Packages <https://wgu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=3f67a96a-561b-42b8-aa9d-a8600170ee5e>

# **Books!**

**O’Reilly Book as a resource for this course.**

“[Python Data Science Handbook](https://jakevdp.github.io/PythonDataScienceHandbook/)” by [Jake VanderPlas](https://github.com/jakevdp) is licensed under [CC-BY-NC-ND 3.0](https://creativecommons.org/licenses/by-nc-nd/3.0/us/legalcode)    C996 Python course

# **More Videos!**



2h11m  
[Learning Python](https://www.lynda.com/Python-tutorials/Learning-Python/661773-2.html?srchtrk=index%3a2%0alinktypeid%3a2%0aq%3apython%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2)  
<https://www.linkedin.com/learning/learning-python-2>

2h27m  
[Advanced Python](https://www.lynda.com/Python-tutorials/Advanced-Python/699337-2.html?srchtrk=index%3a1%0alinktypeid%3a2%0aq%3apython%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2)  
<https://www.linkedin.com/learning/advanced-python>

2h58m  
[Python for Statistics: Essential Training](https://www.lynda.com/Python-tutorials/Python-Statistics-Essential-Training/711826-2.html?srchtrk=index%3a4%0alinktypeid%3a2%0aq%3apython%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2)  
<https://www.linkedin.com/learning/python-statistics-essential-training>

2h10m  
[Python Projects](https://www.lynda.com/Developer-tutorials/Python-Projects/604246-2.html?srchtrk=index%3a6%0alinktypeid%3a2%0aq%3apython%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2)  
<https://www.linkedin.com/learning/python-projects>

4h45m  
[More Python Essential Training](https://www.lynda.com/Python-tutorials/Python-Essential-Training/614299-2.html?srchtrk=index%3a11%0alinktypeid%3a2%0aq%3apython%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2)  
<https://www.linkedin.com/learning/python-essential-training-2>

1h24m  
[Python Data Structures: Stacks-Queues-Deques](https://www.lynda.com/Python-tutorials/Python-Data-Structures-Stacks-Queues-Deques/779747-2.html?srchtrk=index%3a20%0alinktypeid%3a2%0aq%3apython%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2)  
<https://www.linkedin.com/learning/python-data-structures-stacks-queues-and-deques>

2h15m  
[Efficient Programming in Python](https://www.lynda.com/Python-tutorials/Python-Programming-Efficiently/534425-2.html?srchtrk=index%3a19%0alinktypeid%3a2%0aq%3apython%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2)  
<https://www.linkedin.com/learning/python-programming-efficiently>

6h32  
[Python: Data-Science-Essential-Training](https://www.lynda.com/Python-tutorials/Python-Data-Science-Essential-Training/520233-2.html?srchtrk=index%3a25%0alinktypeid%3a2%0aq%3apython%0apage%3a1%0as%3arelevance%0asa%3atrue%0aproducttypeid%3a2)  
6h2m  
<https://www.linkedin.com/learning/python-for-data-science-essential-training-part-1>

2m21s  
[Understanding-Python](https://www.lynda.com/Web-Development-tutorials/Understanding-Python/618730/665103-4.html)   
<https://www.linkedin.com/learning/polyglot-web-development/understanding-python?u=2045532>

**Dr. William Sewell**

Direct Line: 385.428.5377 Toll Free: 877.435.7948 ext 5377

Course Instructor, IT

Mountain Time Office hours: Sun 3:00 PM – 8:00 PM, Mon 6:30 AM – 3:30 PM, Tue 9:30 AM – 6:30 PM, Wed 9:00 AM – 5:00 PM, Thu 6:30 AM – 3:30 PM  
[cmdatabase@wgu.edu](mailto:cmdatabase@wgu.edu) [william.sewell@wgu.edu](mailto:william.sewell@wgu.edu)