

Python Fundamentals

- Video: Introduction to Specialization 3 min
- Reading: Syllabus 10 min
- Reading: Help us learn more about you! 10 min
- Video: Data Science 7 min
- Reading: 10 years of Data Science, David Donoho (optional) 1h 30m
- Video: The Coursera Jupyter Notebook System 3 min
- Reading: Notice for Auditing Learning Assignment Submission 10 min
- Notebook: Week 1 Lectures Jupyter Notebook
- Video: Python Functions 8 min
- Video: Python Types and Sequences 6 min
- Video: Python More on Strings 3 min
- Video: Python Demonstration: Reading and Writing CSV files 3 min
- Video: Python Dates and Times 2 min
- Video: Advanced Python Objects, map() 9 min
- Video: Advanced Python Lambda and List Comprehensions 2 min
- Video: Advanced Python Demonstration: The Numerical Python Library (NumPy) 7 min
- Quiz: Week One Quiz 12 questions

QUIZ • 12 MIN

Week One Quiz

Review Key Concepts

Submit your assignment

DUE May 24, 11:59 PM PDT ATTEMPTS 3 every 8 hours

Try again

Receive grade

TO PASS 80% or higher

Grade

100%

We keep your highest score

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✔ Congratulations! You passed!

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GRADE

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Week One Quiz

LATEST SUBMISSION GRADE

100%

- Python is an example of an
  - ☒ Interpreted language
  - ☐ Declarative language
  - ☐ Operating system language
  - ☐ Data science language
  - ☐ Low level language

✔ Correct  
This material was covered in the "Python Functions" lecture.
- Data Science is a
  - ☐ Branch of statistics
  - ☐ Branch of computer science
  - ☐ Branch of artificial intelligence
  - ☒ Interdisciplinary, made up of all of the above

✔ Correct  
This material was covered in the "Data Science" lecture.
- Data visualization is not a part of data science.
  - ☐ True
  - ☒ False

✔ Correct  
This material was covered in the "Data Science" lecture.
- Which bracketing style does Python use for tuples?
  - ☐ {}
  - ☒ ()
  - ☐ []

✔ Correct  
This material was covered in the "Python Types and Sequences" lecture.
- In Python, strings are considered Mutable, and can be changed.
  - ☒ False
  - ☐ True

✔ Correct  
This material was covered in the "Python More on Strings" lecture.
- What is the result of the following code: ['a', 'b', 'c'] \* 3 + [1, 2, 3]
  - ☒ ['a', 'b', 'c', '1, 2, 3]
  - ☐ TypeError: Cannot convert list(int) to list(str)
  - ☐ ['a1', 'b2', 'c3']
  - ☐ [['a', 'b', 'c'], [1, 2, 3]]

✔ Correct  
This material was covered in the "Python Types and Sequences" lecture.
- String slicing is
  - ☐ A way to make string mutable in python
  - ☐ A way to reduce the size on disk of strings in python
  - ☒ A way to make a substring of a string in python

✔ Correct  
This material was covered in the "Python More on Strings" lecture.
- When you create a lambda, what type is returned? E.g. type(lambda x: x+1) returns
  - ☒ <class 'function'>
  - ☐ <class 'type'>
  - ☐ <class 'int'>
  - ☐ <class 'lambda'>

✔ Correct  
This material was covered in the "Advanced Python Lambda and List Comprehensions" lecture.
- The epoch refers to
  - ☐ January 1, year 0
  - ☒ January 1, year 1970
  - ☐ January 1, year 1980
  - ☐ January 1, year 2000

✔ Correct  
This material was covered in the "Python Dates and Times" lecture.
- This code, [x\*\*2 for x in range(10)], is an example of a
  - ☒ List comprehension
  - ☐ Sequence comprehension
  - ☐ Tuple comprehension
  - ☐ List multiplication

✔ Correct  
This material was covered in the "Advanced Python Lambda and List Comprehensions" lecture.
- Given a 6x6 NumPy array r, which of the following options would slice the shaded elements?

0	1	2	3	4	5
6	7	8	9	10	11
12	13	14	15	16	17
18	19	20	21	22	23
24	25	26	27	28	29
30	31	32	33	34	35

  - ☐ $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} r[1:3]$
  - ☐ $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} r[1::3]$
  - ☒ $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} r.reshape(36)[1:7]$
  - ☐ $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} r[8:6,1::7]$

✔ Correct  
You could also use np.diag(). This material was covered in "Advanced Python Demonstration: The Numerical Python Library (NumPy)"
- Given a 6x6 NumPy array r, which of the following options would slice the shaded elements?

0	1	2	3	4	5
6	7	8	9	10	11
12	13	14	15	16	17
18	19	20	21	22	23
24	25	26	27	28	29
30	31	32	33	34	35

  - ☐ $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} r[::2,::2]$
  - ☐ $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} r[2::2,2::2]$
  - ☒ $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} r[2:4,2:4]$
  - ☐ $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} r[(2,3),(2,3)]$

✔ Correct  
This material was covered in "Advanced Python Demonstration: The Numerical Python Library (NumPy)"