

Lesson 1: Week 4 - Overview

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Week 4 Tuesday To Do List

Week 4 Tuesday To Do List
Admin/Tips
How to Use Jupyter Notebook: A Beginner's Tutorial (added to Ed Lessons General)
For an example of exam questions using doctest, see Exam Questions with Doctest
Quiz 1 worth 4 marks and sample solution released
Quiz 2 worth 4 marks is due Week 4 Thursday @ 9pm
Assignment 1 worth 13 marks is due Week 7 Monday @ 10am
Content
Briefly continue discussing Week 3 - Notes 2 The Monty Hall Problem
Modules and Recursion
Week 4 - Notes 3 The Towers of Hanoi
Useful Links
doctest — Test interactive Python examples (will be used for final exam questions)
<https://docs.python.org/3/library/doctest.html>
timeit — Measure execution time of small code snippets
<https://docs.python.org/3/library/timeit.html>

Week 4 Thursday To Do List

Week 4 Thursday To Do List
Admin/Tips
Quiz 3 worth 4 marks will be released today @ 7.15pm
Quiz 2 worth 4 marks is due today @ 9pm
Assignment 1 worth 13 marks is due Week 7 Monday @ 10am
Content
Continue Week 4 - Notes 3 The Towers of Hanoi
Week 4 - Notes 4 The Fibonacci Sequence
yield statement
functools module
itertools module
islice() function from itertools module
lru_cache() function from functools module
Week 4 - Notes 5 From Decimal Expansions to Reduced Fractions
Using _ as thousands separator, for instance, 10_000
gcd() (greatest common divisor) function
, //, and % operators
divmod() function
bool() function when condition is not a boolean expression
Unpacking tuple elements into function arguments
Useful Links
When to use yield instead of return in Python?
<https://www.geeksforgeeks.org/use-yield-keyword-instead-return-keyword-python/>
Python next() Function
https://www.w3schools.com/python/ref_func_next.asp
functools module — Higher-order functions and operations on callable objects
<https://docs.python.org/3/library/functools.html>
itertools module — Functions creating iterators for efficient looping
<https://docs.python.org/3/library/itertools.html>