
LDOC!

# EX06 - Linked List Utils

- Due: Tonight
- Last day to hand-in: Sunday 11/22 at 11:59pm

# Final Exam - Tuesday 11/24 at 4pm EST

- ~1. 8x length of Quiz 3
- 2.4x time to complete (3 hours)
- Format like Quiz 3
  - No auto-graded programming submission
  - Conceptual questions
  - Diagrams
- 40 or better required to pass with a C or better in COMP110
- Resources and studying suggestions on next slide!

# Resources for Final Exam

- Tutoring - Tonight 6pm to 8pm
  - Come discuss QZ03
- Q&A - Monday at 3pm
  - URL will be on course site
  - Recording will be available on course site afterward
- Course Site
  - Solutions to QZ03 on home page
  - Resources page has Topics for review
  - Redoing practice problems is encouraged
    - Practice diagramming EX06 is encouraged!

# What's next after COMP110

- Learn more about Python and Data Science
  - Suggested topics: Jupyter Notebooks, pandas library for data analysis
- Take COMP210 - Data Structures in Java
  - Videos for making the Python -> Java jump will post to YT in December
- Apply to be a UTA ("LA"): https://bit.ly/2021-spring-uta
- Begin thinking about and preparing for a career!
  - Early Career Newsletter: krisjordan.substack.com

# Diagram & PollEv.com/compunc

```python
from typing import Callable, List

OneVarFunc = Callable[[float], float]


def domain(lo: float, hi: float, step: float) -> List[float]:
    r: List[float] = []
    while lo <= hi:
        r.append(lo)
        lo += step
    return r


def map(ovf: OneVarFunc, xs: List[float]) -> List[float]:
    r: List[float] = []
    for x in xs:
        r.append(ovf(x))
    return r


def f(x: float) -> float:
    return x ** 2


x = domain(1.0, 2.0, 1.0)
y = map(f, x)
print(y)
```

```python
from typing import Callable, List
from matplotlib import pyplot
import math

OneVarFunc = Callable[[float], float]


def domain(lo: float, hi: float, step: float) -> List[float]:
    r: List[float] = []
    while lo <= hi:
        r.append(lo)
        lo += step
    return r


def map(ovf: OneVarFunc, xs: List[float]) -> List[float]:
    r: List[float] = []
    for x in xs:
        r.append(ovf(x))
    return r


def g(x: float) -> float:
    return x ** 2


x = domain(-10.0, 10.0, 0.1)
y = map(g, x)
pyplot.plot(x, y)
pyplot.show()
```

# Code Along

- Add a file: ls47_hof.py
- Add the code definitions to the left.
- Check-in on PollEv.com/compunc once you're ready to continue.

*Special Thanks To...*


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Megan Zhang
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*Thank **YOU** for a great semester!*