Hack110 Sign-Up Form!

When? Saturday, April 5th from 10 AM - 12 AM (Midnight)

Where? In Sitterson Lower Lobby

Who can join? Anyone in COMP 110! No prior experience required. Bring a partner or come as yourself (we'll have team-building activities if you want a partner)

Come for a fun day of coding, workshops and events (also **food will be provided**):

- Choose between web development or game development track
- Go to various **workshops & events** such as: Navigating the CS Major, Resume workshop, ice cream station, and kahoot trivia and MORE!
- Link: Sign-Up Here! Or via the QR code
- **Sign-Up form will close Monday, March 17th at 11:59 pm**
  - Spots are limited! So we'll prioritize interest!
  - If you have a partner, **ONLY ONE OF YOU** has to sign up - you will just enter your partner's info in the form.

Sign-Up Here!

CL18 – Reference Types and Practice with Lists

Announcements

- Quiz 02 on March 7!
  - Review Session this Wednesday (March 5) from 6:15-7:15pm in Sitterson Hall (SN), room 014
  - Practice quiz explanations (part 1) are available
    - Video for the rest of the questions posted by tomorrow

Warm-up: Diagram the following program up to # Stop here!

```python
1   xs: list[int] = [10, 20, 30]
2   i: int = 2
3   xs[i] = xs[i - 1] - 1  # A
4   print(xs)
5   i = i - 1
6   xs[i - 1] = xs[i] + 1  # B
7   print(xs)
8   # Stop here!
9   xs.pop(1)
10  print(xs)
```

Follow-on questions:

Describe line with comment # A in English

Describe line with comment # B in English

Diagramming a Nested while Loop

```python
 1  def triangle(n: int) -> None:
 2      i: int = 1
 3      line: str
 4      while i <= n:
 5          line = ""
 6          while len(line) < i:
 7              line += "*"
 8          print(line)
 9          i += 1
10
11
12  triangle(2)
```

Diagramming a Nested List

```python
def sum2d(xs: list[list[int]]) -> int:
    """Calculate the sum of a 2-dimensional list of lists."""
    total: int = 0
    row_i: int = 0
    while row_i < len(xs):
        col_i: int = 0
        while col_i < len(xs[row_i]):
            total += xs[row_i][col_i]
            col_i += 1
        row_i += 1
    return total


values: list[list[int]] = [[1, 2, 3], [3, 4, 5]]
print(sum2d(values))
```