


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!





CL19 – Nested while Loops and 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!`

```
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

```
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

```
1  def sum2d(xs: list[list[int]]) -> int:
2      """Calculate the sum of a 2-dimensional list of lists."""
3      total: int = 0
4      row_i: int = 0
5      while row_i < len(xs):
6          col_i: int = 0
7          while col_i < len(xs[row_i]):
8              total += xs[row_i][col_i]
9              col_i += 1
10         row_i += 1
11     return total
12
13
14     values: list[list[int]] = [[1, 2, 3], [3, 4, 5]]
15     print(sum2d(values))
```