Announcements

- When A2 marking and feedback is complete, I'll post an announcement on Piazza. We're aiming for later today.
- Exercise 3 will likely be posted in the next day or two.
- Next week's topic: Sorting algorithms

Software Postmortem

- A look back at what went right and what went wrong.
- The goal is to learn lessons from this project in order to do better next time.
- We'll review some A2 design decisions and some common bugs.

A2: symbols and sizes

- To keep track of ship symbols and sizes, we used parallel lists:
  - SHIPS = ['A', 'B', 'C', 'D', 'E']
  - SIZE = [2, 3, 3, 4, 5]
- What other data structures could we have used? Advantages? Disadvantages?

A2: hits lists

- "hits list" was a parallel list with SHIPS; initially has same elements as SIZES
- One "hits list" per player. Why did we create the hits list the first way, not the second?
  - `hits_player = SIZES[:]`
  - `hits_player = SIZES`
- What other data structures could we have used? Advantages? Disadvantages?

A2: duplicate code

In get_view_board():

```
view_board = []
for row in range(BOARD_SIZE):
    view_board.append([])
    for column in range(BOARD_SIZE):
        view_board[row].append(HIDDEN)
```

In make_computer_board():

```
board = []
for row in range(BOARD_SIZE):
    board.append([])
    for column in range(BOARD_SIZE):
        board[row].append(VACANT)
```

A2: get_view_board bug

- What is the problem with this solution?

```
board = []
inner_list = [HIDDEN] * BOARD_SIZE
for i in range(BOARD_SIZE):
    board.append(inner_list)
return board
```

A2: is_win bug

- What is the problem with this solution?

```
for item in hits_list:
    sunk = (item == 0)
return sunk
```

A2: is_occupied bug

- What is the problem with this solution?

```
for row in range(row1, row2 + 1):
    for column in range(col1, col2 + 1):
        if board[row][column] != VACANT:
            return True
        else:
            return False
```