Arrays

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Exercise 1: Differences

What can a list do that an array can’t?

Why would a programmer use arrays anyway?

Exercise 2: Example Uses

```
import numpy as np
tic_tac_toe = np.array([[1, 2, 2], [2, 1, 2], [2, 2, 1]])

print(tic_tac_toe)
print(tic_tac_toe[0])
print(tic_tac_toe[0:])
print(tic_tac_toe ** 2)
print(tic_tac_toe > 1)

for item in tic_tac_toe:
    print(item)
```

Exercise 3: String arrays

Create a list named squidward with the contents of “It”, “sure”, “is”, “nice”, “driving”, “my”, “2020”, “Chevy”, “Silverado”.

Create a list named spongebob with the contents of “Hi, S”, “q”, “u”, “i”, “d”, “w”, “a”, “r”, “d”.

Create an np.array with these two lists.

Exercise 4: Debugging

Fix the example, lab7.py, from the github repository.

Create some test cases for it. Be sure you're able to explain why you've created them.

Notes: If you need comments to explain what the code does, consider changing variable names to make the code self-explanatory.

Docstring examples are in Lab 4 and 2 slides.