

# CSE 142 - 07.27

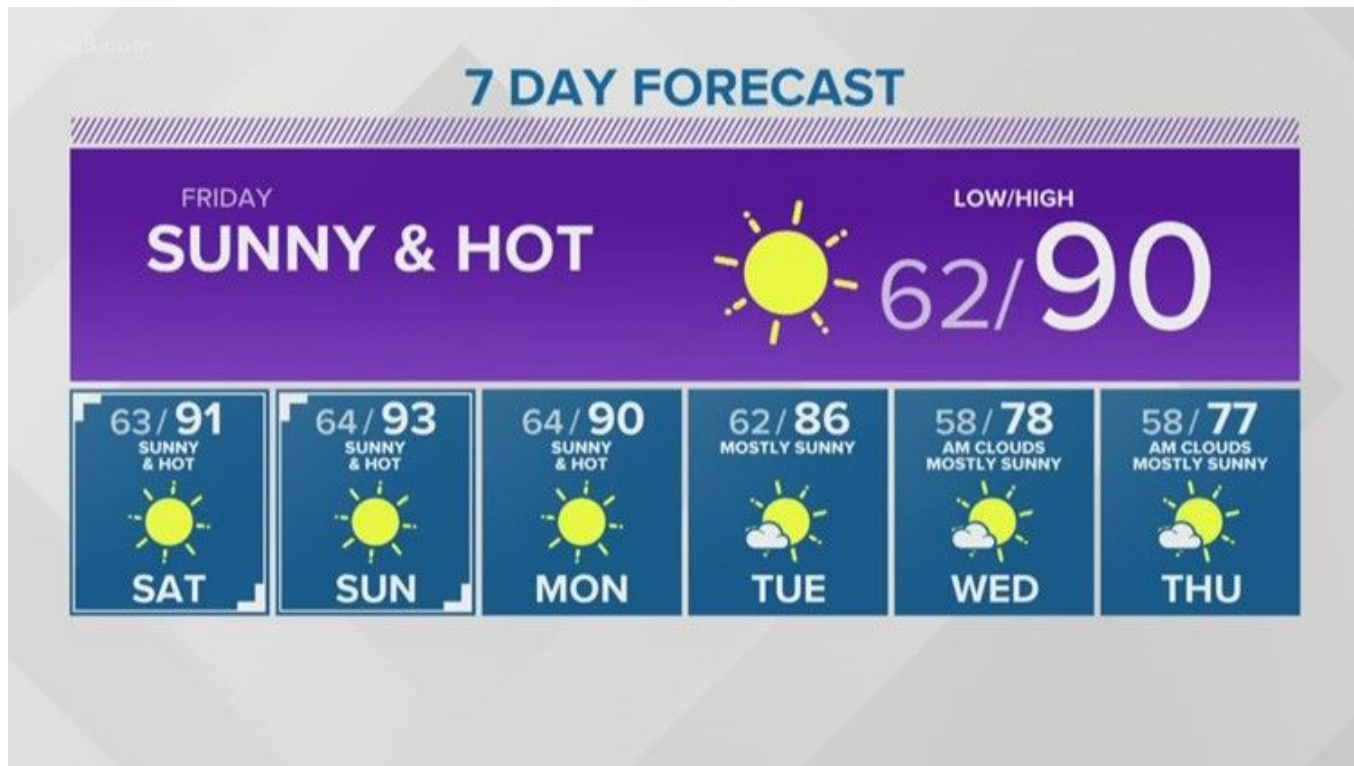
## Arrays

BJP4 Ch. 7

# HW6 Demo

# How about that Seattle Weather?

Code Demo!



# Check Your Understanding:

## Setting and Getting Array Values

[< oddsArray](#)

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[fillDataArray >](#)

### ✓ BJP4 Self-Check 7.5: numbersArray ☆ Favorite

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Language/Type: [Java arrays array mystery](#)  
Author: Coral Peterson (on 2016/09/08)

What elements does the array numbers contain after the following code is executed? (Write the elements in the format: {0, 1, 2, ...} )

```
int[] numbers = new int[8];
numbers[1] = 4;
numbers[4] = 99;
numbers[7] = 2;

int x = numbers[1];
numbers[x] = 44;
numbers[numbers[7]] = 11; // uses numbers[7] as index
```

elements

🔊 Sound F/X

[Chapter 7 s5](#)

# Check Your Understanding:

## Loops over Arrays

[< traversal](#)

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[arrayCodeTracing2 >](#)

### ✔ BJP4 Self-Check 7.13: printElements ☆ Favorite

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**Language/Type:** [Java arrays](#)

**Author:** Marty Stepp (on 2016/09/08)

Write code that uses a for loop to print each element of an array named `data` that contains five integers. If the array contains the elements `[14, 5, 27, -3, 2598]`, then your code should produce the following output:

```
element [0] is 14
element [1] is 5
element [2] is 27
element [3] is -3
element [4] is 2598
```

Once your code works for the array of size 5, generalize the code so that it works for an array of any length.

# Check Your Understanding:

## Methods and More Loops with Arrays

[< range](#)

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[isSorted >](#)

### ✓ BJP4 Exercise 7.3: countInRange ☆ Favorite

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❓ Show Solution(s)

Language/Type: 📄 Java [arrays](#)

Author: Whitaker Brand (on 2016/09/08)

Write a method called `countInRange` that accepts an array of integers, a minimum value, and a maximum value as parameters and returns the count of how many elements from the array fall between the minimum and maximum (inclusive).

For example, in the array `{14, 1, 22, 17, 36, 7, -43, 5}`, there are four elements whose values fall between 4 and 17.

# Recap

[“hip!”, “hip!”]

We’ve added a fundamental tool to our CSE 142 toolbox which allows us to solve an exciting new class of problems

```
double temp1, temp2, ... tempNumDays? // :(  
double[] temps = new double[numDays]; // :)
```

You should now be able to:

- Initialize a new array of ints, doubles, Strings, etc.
- Fill the array with values using a loop
- Perform a calculation over an array (e.g. countAboveAvg)

# With Great Power, Comes Great Responsibility...

Do not use Arrays solely to return multiple, unrelated values in a method

Be wary of index bounds, especially when looping through your Arrays (you cannot access an index less than 0 or greater than `arr.length - 1`)

More to come on reference semantics!

# Final Notes

You **may not use arrays** in HW6

Suggested Practice-It problems:

- [arrayCodeTracing](#)
- [averageLength](#)
- [isSorted](#)

Enjoy the weather (or the opportunity to stay inside) this weekend!