

CS1115 Lab 7 (October 17, 2013)

Completing the lab is very important, but your work is not graded and it is not submitted. If you finish before the hour is over, then you can leave early or you can work on the "Finished Early" problems. If you do not finish the problems before the end of class, then be sure to ask enough questions so that you can complete the exercises in the next day or two on your own.

1. Cell Array Practice

Download `CellArrays` from the syllabus page. If you run the script a column of state names is displayed. (a) Modify it so that the displayed list is alphabetical:

```
Alabama
Alaska
Arizona
:
West Virginia
Wisconsin
Wyoming
```

Hint: Use `sort`. (b) Continue to modify `CellArrays` so that the displayed list is "right justified:

```
Alabama
Alaska
Arizona
:
West Virginia
Wisconsin
Wyoming
```

Hint: Use blanks and concatenation. (c) Continue to modify so that each state is displayed with its "reverse alphabetical partner:"

```
Alabama Wyoming
Alaska Wisconsin
Arizona West Virginia
:
West Virginia Arizona
Wisconsin Alaska
Wyoming Alabama
```

2. Structures Practice

Download `Structures.m` from the syllabus page and study how it works. If you enter "Structures" in the command window then colored disks will be displayed against a black square. (a) Modify `Structures` so that it only displays disk $D(k)$ if it does not intersect the boundary of the square. (b) Continue the modifications so that `Structures` only displays disk $D(k)$ if $k = 1$ or if its radius is smaller than the radius of disk $D(k-1)$.

3. Finished Early

Write a script that sets up a cell array that houses all possible 4-letter words that have no repeated letters. How long is the array?

Please delete your files from the computer before you leave the lab!