CSC 151 Spring 2020
Topic: Insertion Sort

April 29, 2020

Day 38

Self Checks
Verifying Insert

- Why do you think we had you check that insert-number works on each of these lists?

  Inserting 42 into :
  Empty list
  A list of numbers larger than 42 (sorted)
  A list of numbers smaller than 42 (sorted)
  A list of numbers both smaller and larger than 42 (sorted)
  (list 42 42 42)

- What happens if the list is not in ascending order when insert-number is invoked?

Self Checks
Displaying Steps in insertion sort

- What will the the values of sorted and unsorted be for the first few iterations of the kernel in numbers-insertion-sort?

```
(numbers-insertion-sort (list 7 6 12 4 10 8 5 1))
```

Understanding Insertion Sort

For more understanding of insertion sort, check out these resources:

- Romanian Dancing
- Try using insertion sort to sort some playing cards (or paper with numbers written on them).
- Fairy Tale about Insertion Sort (this story references Merge Sort, which we will learn soon!)

Lab Time



← Luna the dog. She lives in North Carolina. ☺

Upcoming Work

Submit Exercises 1, 2d, 2e, 3, 4b – 4f, and 5
By Friday May 1 at 10:30pm Central Time
Include documentation for problem 1

To: csc-151-02-grader@grinnell.edu
Subject: CSC 151-02 Lab 4/29

Project is due next Tuesday. Continue to work on it!