Lecture 3: April 7, 2023

Reading: *zyBooks text*, §2.20; [2]

1. Greetings and felicitations!
   (a) *ssh* Tutorial is now up; ***Use your CAS (Kerberos) name to log in***
      i. `ssh CAS-login-name@pcnn.cs.ucdavis.edu`
      ii. ***Important***: If you do not use your CAS login, you will not log in!
   (b) To see which CSIF systems are up and which are down, go to `http://iceman.cs.ucdavis.edu/nagios3/cgi-bin/status.cgi?hostgroup=all`
2. Example: making change [*fahr1.c*]
   (a) Add input using `scanf`
   (b) Add error checking
3. Variable names
4. Basic types
   (a) **`int`**, **`long`** vs. **`short`**, **`unsigned`** vs. **`signed`**
   (b) **`char`**, treated like an **`int`** that holds 1 character
   (c) **`float`**, **`double`**
   (d) Type casting
5. Basic operators
   (a) arithmetic: **`+`**, **`-`**, **`*`**, **`/`**, **`%`**
   (b) **`%`** defined so that `n % p = r` implies $n = ap + r$ for some a
   (c) `5 % -2` can be 1 ($5 = (-2) \times (-2) + 1$) or -1 ($5 = (-3) \times (-2) + (-1)$)
6. Associativity of operations
   (a) Difference between associativity of operations and order of evaluation
7. A more sophisticated Fahrenheit to Celsius temperature converter [*fahr2.c*]
   (a) `#include <stdio.h>`
   (b) Macros
   (c) **`float`**
   (d) **`for`** loop
8. Debugging: find the error! [*fahr2-buggy.c*]

Handouts

2. *vim* Tutorial *vim.pdf*