CSE306 Software Quality in Practice

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Team-based

Set up BitBucket at usual so course staff can view

Learning goals:
- show you can apply process
- show you can use tools effectively
More gdb commands

timberlake:~alphonse/CSE306

- C-x C-a toggle between a "graphical" and line-based UI
- watch <variable>
- **Looking at source code:**
  - list line#
  - list function
  - disassemble /m
- **Looking at data:**
  - print
  - examine (x)

[https://sourceware.org/gdb/current/onlinedocs/gdb/Arrays.html#Arrays](https://sourceware.org/gdb/current/onlinedocs/gdb/Arrays.html#Arrays)
```
#include <stdlib.h>
#include <string.h>
#include <stdio.h>

int main(int argc, char * argv[]) {
    if (argc !=2) {
        printf("Please give one numeric argument.\n");
        return 1;
    }

    int limit = atoi(argv[1]);

    char * string,* name;
    name = malloc(3 * sizeof(char));
    string = malloc(9 * sizeof(char));
    name[0] = '@';
    name[1] = '$';
    name[2] = '\0';
    string[0] = 's';
    string[1] = 'e';
    string[2] = 'r';
    string[3] = 'e';
    string[4] = 'n';
    string[5] = 'i';
    string[6] = 't';
    string[7] = 'y';
    string[8] = '\0';
    printf("string has length %d and is %s.\n",strlen(string),string);
    printf("name has length %d and is %s.\n",strlen(name),name);
    for (int i=3; i<limit; i++) {
        name[i] = (char) ('a'+((i-3)%26));
    }
    name[limit] = '\0';
    printf("string has length %d and is %s.\n",strlen(string),string);
    printf("name has length %d and is %s.\n",strlen(name),name);
    return 0;
}
```