Jason Millette
Homework 2
2/10/2018

1.

```
#include <stdio.h>
/*
 *Jason Millette
 *9/11/2018
 *adder program
 *ECE331
 */

int main(int argc, char *argv[])
{
/*
 *Adds all numbers
 *in a string then
 *prints result to
 *terminal
 */
int i = 0, j = 0, nums = 1, sum = 0, length = 0, totalCharacters = 1;
if (argv[1][0] == '+' && argv[1][1] == '+') {
        printf("you cant start with two + signs\n");
        return 0;
}

while (argv[1][++i] != '\0') {                                          //checks
for errors and breaks up the string

        if (((argv[1][i] < '0' || argv[1][i] > '9') && (argv[1][i] != '+') )) {
                printf("you entered an invalid character\n");
                return 1;
        }

        else if ((argv[1][i] == '+') && (argv[1][i+1] == '+') && (argv[1][i+2] ==
'+')) {
                printf("you have entered 3 or more + sings in a row\n");
                return 1;
        }

        else if (argv[1][i+1] == '\0' && argv[1][i] == '+') {
                printf("you can not end with a + sign\n");
          return 1;
        }

        else if ((argv[1][i] == '+') && (argv[1][i+1] == '+') && (argv[1][i+2] ==
'+')) {
                printf("you have entered 3 or more + sings in a row\n");
                return 1;
        }

        else if (argv[1][i+1] == '\0' && argv[1][i] == '+') {
                printf("you can not end with a + sign\n");
                return 1;
        }
```

```
        else if ((argv[1][i] == '+') && (argv[1][i-1] != '+'))
          nums++;

        if (argv[1][i] == '+')
                argv[1][i] = '\0';

        totalCharacters++;
}

for (i = 0; i < totalCharacters; i++) {      //adds all the parsed strings
        j = 0;
        if (argv[1][i] != '\0') {

                while (argv[1][i+j] !='\0') {
                        length++;
                        j++;
                }

                char number[length+2];
                for (int k = 0; k < length; k++) {
                        number[k] = argv[1][i+k];
                }

                number[length] = '\0';
                sum += atoi(number);
                length = 0;
                i += j;
        }
}

if (sum < 0) {
        printf("overflow error\n");
        return 1;
}

printf("sum = %d\n",sum);
return 0;
}

2.
/*
 * Jason Millette
 * 2/11/2018
 * number of bytes
 * ECE331
 */
#include <stdio.h>
#include <errno.h>
#include <sys/stat.h>
#include <sys/types.h>

int main (int argc, char *argv[])
/*
 * Increments through
 * all arguments and
```

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 * adds their file
 * size to the total
 */
{
        struct stat buf;
        int total = 0;

        if (argc < 2) {                       //checks for input file
                printf("enter a file(s)\n");
                return 1;
        }

        for (int i = 1; i < argc; i++) {
                if (stat(argv[i],&buf) < 0) {
                        printf("%s\n", strerror(errno));  //checks and prints error
                        return 1;
                }

                total += buf.st_size;
        }

        printf("%d\n",total);
        return 0;
}
```

3. mv coco skywalker
4. cp skywalker ender
5. wc -l /proc/cpuinfo
6. a. chmod 511 voldemort
   b. chmod u=x,g=wx,o=rwx voldemort
7. alias grep2="grep -E"
8. Added a script that runs on startup creating the alias script is "alias grep2='grep -E'" the script is located in the startup file etc/profile.d/aliases.sh
9. argv[0] is the name of the program/executable. if the name is not available argv[0] is a pointer to an argument