/\* Assignment: C5 Post Activity, Task 1

\* File: C5\_PA\_Task1\_katherto.c

\* Date: 17 February 2016

\* By: Kathryn Atherton

\* katherto

\* Section: 03, 1:30-3:20

\* Team: 45

\*

\* ELECTRONIC SIGNATURE

\* KATHRYN ATHERTON

\*

\* The electronic signature above indicates that the

\* program submitted for evaluation is my individual work

\* and I have a general understanding of all aspects of

\* its development and execution.

\*

\* A BRIEF DESCRIPTION OF WHAT THE PROGRAM OR FUNCTION

\* DOES

\* This is a program to read a string of up to 15

\* characters with no embedded blanks from a user input,

\* use a function to reverse the string, and print the

\* reverse string.

\*/

#include <stdio.h>

#include <string.h>

//FUNCTION PROTOTYPE

void revcheck(char \*userString);

//MAIN FUNCTION

int main(void){

//DECLARE VARIABLES

char userString[16];

//ACCEPT STRING

printf("Enter a string: ");

scanf("%s", userString);

//CHECK FOR ENGR-AWESOME SPECIAL CASE

if(strcmp(userString, "ENGR-awesome") == 0){

printf("That's right!\n");

}

else{

//PRINT ORIGINAL STRING

printf("Original string: %s\n", userString);

//FUNCTION CALL

revcheck(userString);

//PRINT NEW STRING

printf("Reverse String: %s\n", userString);

}

return 0;

}

void revcheck(char \*userString){

//DECLARE VARIABLES

char \*s;

char \*end;

int n = 0;

char temp;

char old[16];

int i = 0;

strcpy(old, userString);

//FIND S AND END

s = &userString[0];

while (userString[n] != '\0'){

n++;

}

end = &userString[n - 1];

//REVERSE STRING

while (s < end){

//SWAP CHARACTERS

temp = \*s;

\*s = \*end;

\*end = temp;

//INCREMENT S, DECREMENT END

s = s + 1;

end = end - 1;

}

//CHECK INVERSION

for(i = 0; i < n; i++){

if(userString[i] != old[n - 1 - i]){

printf("Error in inversion at character %d.", i);

}

}

return;

}