

## charArraysAndStrings.c

```

/*****
File name: charArraysAndStrings.c
Author:    $Author: chadd $
Date:     Sep 8, 2011
Class:    CS 300
Assignment: In Class Example
Purpose:   Demonstrate the use of character arrays as strings in C.
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*****/

#include <stdio.h>
#include <stdlib.h>

/*****
Function:   printString
Description: Print the character array
Parameters: array - the character array using pointer notation
Returned:   None
*****/
void printString (char *pStr)
{
    printf ("printString: %s\n", pStr);
}

/*****
Function:   printCharArray
Description: Print the character array
Parameters: array - the character array
Returned:   None
*****/
void printCharArray (char array[])
{
    printf ("printCharArray: %s\n", array);
}

/*****
Function:   main
Description: Creates two character arrays and passes them to functions for
            printing. Also removes the null terminator form one array
            to demonstrate the error that occurs.
Parameters: None
Returned:   None
*****/

int main ()
{
    char *pString = "Hello World";
    char charArray[] = { 'C', 'S', '!', '\0' };

```

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```
printString (pString);
printCharArray (charArray);

printString (charArray);
printCharArray (pString);

/*
 * The following code, setting charArray[3] to '!',
 * causes an error. The null terminator is removed
 * from the string charArray and printf does not know
 * when to stop printing characters.
 */
charArray[3] = '!';
printCharArray (charArray);
printString (charArray);

return EXIT_SUCCESS;
}
```