String Operations

```c
#include <stdio.h>

// Function to copy one string to another
void copyString(char dest[], char src[]) {
    int i = 0;
    while (src[i] != '\0') {
        dest[i] = src[i];
        i++;
    }
    dest[i] = '\0';
}

// Function to calculate the length of a string
int stringLength(char str[]) {
    int length = 0;
    while (str[length] != '\0') {
        length++;
    }
    return length;
}

// Function to concatenate two strings
void concatString(char dest[], char src[]) {
    int dest_len = stringLength(dest);
    int i = 0;
    while (src[i] != '\0') {
        dest[dest_len + i] = src[i];
        i++;
    }
    dest[dest_len + i] = '\0';
}

// Function to reverse a string
void reverseString(char str[]) {
    int length = stringLength(str);
    int start = 0;
    int end = length - 1;
    while (start < end) {
        char temp = str[start];
        str[start] = str[end];
        str[end] = temp;
        start++;
        end--;
    }
}

// Function to compare two strings
int compareString(char str1[], char str2[]) {
    int i = 0;
    while (str1[i] != '\0' && str2[i] != '\0') {
        if (str1[i] != str2[i]) {
```

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            return str1[i] - str2[i];
        }
        i++;
    }
    return str1[i] - str2[i];
}

int main() {
    char str1[100], str2[100], result[200];

    printf("Enter the first string: ");
    scanf("%s", str1);

    printf("Enter the second string: ");
    scanf("%s", str2);

    // Copy string
    char copiedStr[100];
    copyString(copiedStr, str1);
    printf("Copied string: %s\n", copiedStr);

    // Length of string
    printf("Length of first string: %d\n", stringLength(str1));
    printf("Length of second string: %d\n", stringLength(str2));

    // Concatenate string
    concatString(result, str1);
    concatString(result, str2);
    printf("Concatenated string: %s\n", result);

    // Reverse string
    reverseString(str1);
    reverseString(str2);
    printf("Reversed first string: %s\n", str1);
    printf("Reversed second string: %s\n", str2);

    // String comparison
    int cmp = compareString(str1, str2);
    if (cmp == 0) {
        printf("The strings are equal.\n");
    } else if (cmp < 0) {
        printf("The first string is less than the second string.\n");
    } else {
        printf("The first string is greater than the second string.\n");
    }

    return 0;
}
```