

## Program 2

String Concatenating and String Comparison.

### Algorithm for String Concatenation.

1. START
2. Input String 1 & String 2.
3. Use while to iterate over string 1 till end and from there add the characters of string 2 to string 1.
4. Print the String 1
5. STOP

### Algorithm for String Compare

1. START
2. Input String 1 & String 2.

3. Use while loop to check each element of the string 1 & string 2
  - 3.1. if not same display ~~the~~  
Not same
  - 3.2. else print same
4. STOP

### Algorithm for main

1. START
2. Initialize the variables.
3. Input string 1 & string 2.
4. Call String Concat & String Compare till exit.
5. STOP.

```

#include <stdio.h>
void stringcat(char s1[],char s2[]){
    // concatenator
    int i=0,j=0;
    while(s1[i+1]!='\0'){
        ++i;
    }
    for(j=0; s2[j]!='\0'; ++j, ++i){
        s1[i]=s2[j];
    }
    s1[i]='\0';
    printf("Concatinated string: %s",s1);
}
void stringcom(char s1[],char s2[]){
    int i=0;
    while((s1[i]!='\0')||(s2[i]!='\0')){
        if((s1[i+1]=='\0')||(s2[i+1]=='\0')){
            printf("0 -->equal strings");
        }
        else if(s1[i]>s2[i]){
            printf("1 -->first string is greater than the second");
            break;
        }
        else if(s1[i]<s2[i]){
            printf("-1 -->first string is lesser than the second");
            break;
        }
        i++;
    }
    printf("(character value)\n");
}

int main(){
    //input
    int ans=1;
    printf("\nPress 1000 to exit or type in the next string you want to test\n\n");
    while(ans!=1000){
        printf("String 1: ");
        char s1[50];
        fgets(s1,50,stdin);
        printf("String 2: ");
        char s2[50];
        fgets(s2,50,stdin);
        //copy array
        int i;
        char s3[50];
        for (i=0;s1[i]!='\0';++i){
            s3[i] = s1[i];
        }
    }
}

```

```
s3[i] = '\\0';  
//string concatenator  
stringcat(s3,s2);  
//string comparer  
stringcom(s1,s2);  
scanf("%d",&ans);  
}  
}
```

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Files

main.c

```
main.c
29     i++;
30 }
31 printf("(character value)\n");
32 }
33
34 int main(){
35     //input
36     int ans=1;
37     printf("\nPress 1000 to exit or type in the next string you
want to test\n\n");
38     while(ans!=1000){
39         printf("String 1: ");
40         char s1[50];
41         fgets(s1,50,stdin);
42         printf("String 2: ");
43         char s2[50];
44         fgets(s2,50,stdin);
45         //copy array
46         int i;
47         char s3[50];
48         for (i=0;s1[i]!='\0';++i){
49             s3[i] = s1[i];
50         }
51         s3[i] = '\0';
52         //string concatenator
53         stringcat(s3,s2);
54         //string comparer
55         stringcom(s1,s2);
56         scanf("%d",&ans);
57     }
```

```
> clang-7 -pthread -lm -o main main.c
> ./main

Press 1000 to exit or type in the next string you want to test

String 1: joel
String 2: joel
Concatinated string: joeljoel
0 -->equal strings(character value)

nickson
String 1: String 2: joel
Concatinated string: nicksonjoel
1 -->first string is greater than the second(character value)

a
String 1: String 2: b
Concatinated string: ab
-1 -->first string is lesser than the second(character value)

b
String 1: String 2: a
Concatinated string: ba
1 -->first string is greater than the second(character value)

1000
> 
```

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