



Department of Computer Science & Engineering

Problem Solving with C Laboratory-UE19CS152

Week-9

Objective: Students will learn strings, pointers and also usage of Multiple files.

1) Write functions to

a) Reverse a string.

b) Check for equality of strings.

In the client program, use these functions to check whether the given string is a palindrome.

Input1:

Enter string

helloworld

Output1:

Reversed string is = dlrowolleh

Given string is helloworld is not palindrome

Input2:

Enter string

malayalam

Output2:

Reversed string is = malayalam

Given string is malayalam is palindrome

2) Write a function to extract a portion of character string and print the substring(extracted string).

Input1:

Enter a string: Welcome to C programming

Enter start index: 8

Enter end index: 14

String is: Welcome to C programming

Output1:

Substring is: to C pr

Input2:

Enter a string: Welcome to C programming

Enter start index: 8

Enter end index: 30

String is: Welcome to C programming

Output2:

Invalid 'end' index

Function execution failed!!!

3)Write function to Concatenate two strings and use this to concatenate n (i.e, say 2) strings.

Input1:

Enter 1st string

hello

Enter 2nd string

world

Enter number of times u want to append

1

Output1:

Concatenated string is helloworld

Input2:

Enter 1st string

hello

Enter 2nd string

world

Enter number of times u want to append

2

Output2:

Concatenated string is helloworldworld

4) Write function to replace all occurrences of a character by specific character in a String.

Input1:

Please Enter any String : Welcome to C programming

Please Enter the Character that you want to Replace : o

Please Enter the New Character : @

Output1:

The Final String after Replacing All Occurrences of 'o' with '@'

= Welc@me t@ C pr@gramming

Input2:

Please Enter any String : Hello Good morning

Please Enter the Character that you want to Replace : n

Please Enter the New Character : #

Output2:

The Final String after Replacing All Occurrences of 'n' with '#'

= Hello Good mor#i#g

Practice programs:

- 1) Write a function to count the number of occurrences of a given character. Use this to find the number of occurrences of every character in a word.
- 2) Write the function strend (s , t), which returns 1 if the string t occurs at the end of the string s, and zero otherwise.

Sample Input1:

hello world

world

Output1:

1

Sample Input2:

hello world!

world

Output2:

0

To create multiple files and use make command to run programs.

filename.mk

a.out: client.o server.o

gcc client.o server.o

client.o: client.c server.h

gcc -c client.c

```
server.o: server.c server.h
```

```
gcc -c server.c
```

Commands to run multiple files:-

```
make -f filename.mk
```

```
./a.out
```