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| **1** | 1)Write functions to  a) Reverse a string.  b) Check for equality of strings.  **Input1:**  Enter string  abbcbba  **Output1:**  Reversed string is = abbcbba  Given string is abbcbba is palindrome  **Input2:**  Enter string  hi  **Output2:**  Reversed string is = ih  Given string is hi is not palindrome |
|  | **Program:**  **Client1.c**  **#include<stdio.h>**  **#include "1.h"**  **int main()**  **{**  **char s[20];**  **char rev[20];**  **printf("Enter the string\n");**  **scanf("%s",s);**  **reverse\_string(s,rev);**  **int r=check\_equal(s,rev);**  **if(r==0)**  **printf("%s is a palindrome\n",s);**  **else**  **printf("%s is not a palindrome\n",s);**  **}**  **Server1.c**  **#include<stdio.h>**  **void reverse\_string(const char \*s1,char \*s2)**  **{**  **int len=0;**  **while(\*s1!='\0')**  **{**  **++s1;**  **++len;**  **}**  **printf("%d",len);**  **while(len>0)**  **{**  **\*s2++=\*(--s1);**  **len--;**  **}**  **\*s2='\0';**  **}**  **int check\_equal(const char\*s1,const char \*s2)**  **{**  **while(\*s1 && \*s2 && \*s1==\*s2)**  **{**  **s1++;**  **s2++;**  **}**  **return \*s1-\*s2;**  **}**  **1.h**  **void reverse\_string(const char \*s1,char \*s2);**  **int check\_equal(const char\*s1,const char \*s2);** |
|  | **Output Screenshot:** |
| **2** | Write function to find all occurrences of a character in a string and use this function to replace all occurences of a character by specific character.  Input1:  Enter the string : Welcome to C programming  Enter a character to replace: o  Enter character to replace with r : @  Output1:  Before replace: Welcome to C programming  After replace: Welc@me t@ C pr@gramming |
|  | **Program:**  **Client2.c**  **#include<stdio.h>**  **#include "2.h"**  **int main()**  **{**  **char str1[20],c1,c2;**  **printf("Enter a string\n");**  **scanf("%[^\n]s",str1);**  **printf("Enter the character to replace\n");**  **fflush(stdin);**  **c1=getchar();**  **fflush(stdin);**  **printf("Enter the character to be replaced with\n");**  **c2=getchar();**  **printf("Before replace %s\n",str1);**  **replacechar(str1,c1,c2);**  **printf("After replace %s\n",str1);**  **return 0;**  **}**  **Server2.c**  **#include "2.h"**  **void replacechar(char \*s,char c1,char c2)**  **{**  **int i=0;**  **for(i=0;s[i]!='\0';i++)**  **{**  **if(s[i]==c1)**  **{**  **s[i]=c2;**  **}**  **}**  **}**  **2.h**  **void replacechar(char \*s,char c1,char c2);** |
|  | **Output Screenshot:** |
| **3** | Write a function to remove all repeated characters from a given string and display the string without duplicate characters.  **Input 1:**  Enter any string: hello world  **Output 1:**  String before removing duplicates: hello world  String after removing duplicates: helo wrd  **Input 1:**  Enter any string: programming in c  **Output 1:**  String before removing duplicates: programming in c  String after removing duplicates: progamin c |
|  | **Program:**  **Client3.c**  **#include<stdio.h>**  **#include "3.h"**  **int main()**  **{**  **char str[20];**  **printf("Enter the string\n");**  **scanf("%[^\n]s",str);**  **printf("string before removing duplicates is %s\n",str);**  **removeduplicates(str);**  **printf("string after removing duplicates is %s\n",str);**  **return 0;**  **}**  **Server3.c**  **#include "3.h"**  **void removeduplicates(char \*str)**  **{**  **int i=0;**  **while(str[i]!='\0')**  **{**  **removeall(str,str[i],i+1);**  **i++;**  **}**  **}**  **void removeall(char \*str,char remove,int index)**  **{**  **int i;**  **while(str[index]!='\0')**  **{**  **if(str[index]==remove)**  **{**  **i=index;**  **while(str[i]!='\0')**  **{**  **str[i]=str[i+1];**  **i++;**  **}**  **}**      **else**  **{**  **index++;**  **}**  **}**  **}**  **3.h**  **void removeduplicates(char \*str);**  **void removeall(char \*str,char remove,int index);** |
|  | **Output Screenshot:** |
| 4 | Write function to Concatenate two strings and use this to concatenate n (i.e, say 2) strings.  **Input 1:**  Enter 1st string  pes  Enter 2nd string  university  Enter number of times u want to append  1  **Output1:**  Concatenated string is pesuniversity  **Input2:**  Enter 1st string  pes  Enter 2nd string  university  Enter number of times u want to append  2  **Output2:**  Concatenated string is pesuniversityuniversity |
|  | Program: |
|  | Output Screenshot: |
| 1 | **Practice Programs**  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.  **Input:**  pesit pes!  **Output:**  i occurs is 1 times  t occurs is 1 times  occurs is 1 times  p occurs is 2 times  e occurs is 2 times  s occurs is 2 times  ! occurs is 1 times |
|  | Program: |
|  | Output Screenshot: |
| 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.  **Input1:**  hello world!  world  **Output 1:**  0  **Input2:**  hello world! world  world  **Output 2:**  1 |
|  | Program: |
|  | Output Screenshot: |