1)write a C program to concatenate two strings without using library function.
Sample Input:
Enter String 1: welcome
Enter String 2: ksr
Sample Output:
Result: welcomeksr

solution:

```
// C Program to concatenate two
// strings without using strcat
#include <stdio.h>

int main()
{

      // Get the two Strings to be concatenated
      char str1[100]="welcome",str2[100]="welcome" ;

      // Declare a new Strings
      // to store the concatenated String
      char str3[100];

      int i = 0, j = 0;

      printf("\nFirst string: %s", str1);
      printf("\nSecond string: %s", str2);

      // Insert the first string
      // in the new string
      while (str1[i] != '\0') {
            str3[j] = str1[i];
            i++;
            j++;
      }

      // Insert the second string
      // in the new string
      i = 0;
      while (str2[i] != '\0') {
            str3[j] = str2[i];
            i++;
            j++;
      }
      str3[j] = '\0';

      // Print the concatenated string
      printf("\nConcatenated string: %s", str3);

      return 0;
}
```

```
##########################################################################
#####################################################
```

Get two names from the user and compare the length of the two names without using
string library functions.
Sample Input:
Check the length of two strings:

```
 string 1 : helloeee
 string 2 : hello
```

Expected Output :

Strings length are not equal.

Check the length of two strings:

```
string 1: world
string 2: world
```

Expected Output : Strings length are equal.

solution:

```
// C Program to concatenate two
// strings without using strcat
#include <stdio.h>

int main()
{

// Get the two Strings to be compared
   char str1[100]="helloee",str2[100]="hello" ;
   int i = 0, j = 0,count1=0,count2=0;
   printf("\nFirst string: %s", str1);
   printf("\nSecond string: %s\n", str2);

    for(int i=0;str1[i]!='\0';i++){
        count1++;
    }

    for(int i=0;str2[i]!='\0';i++){
        count2++;
    }
    if(count1==count2){
        printf("equal");
    }
    else{
        printf("not equal");
```

```
    }
      return 0;
}
```

##
##

compare two strings equal or not , using without string compare function

```
// C Program to concatenate two
// strings without using strcat
#include <stdio.h>

int main()
{

      // Get the two Strings to be compared
      char str1[100]="hello",str2[100]="hello" ;
        int i = 0, j = 0,flag=1;

      printf("\nFirst string: %s", str1);
      printf("\nSecond string: %s\n", str2);

        //compare two string using looping here,
        //note it two initialization,two condition
      for(i=0,j=0;str1[i]!='\0' && str2[j]!='\0';i++){
           if(str1[i]!=str2[i]){
                  flag=0;
              }

      }

    if(flag){
        printf("equal");
    }
    else{
        printf("not equal");
    }
      return 0;
}
```

##
#######################################

Write a C program to Reverse a string without using a library function.
Sample Input:
enter a string Helloee
Sample Output:
reversed string = eeolleH

solution:

```
#include <stdio.h>

int main()
{

      // Get the  String
      char str1[100]="Helloee";
      int count=0;

        //here finding length of string without string function, so make
count=0 then check string end of null, in the time increase count
      for(int i=0;str1[i]!='\0';i++){
          count++;
      }

        //printf("%d",count); // here count will be 7
        //here string will print reverse order , like
str1[6],str1[5]...str1[0]
      for(int j=count-1;j>=0;j--){
          printf("%c",str1[j]);
      }

      return 0;
}
```

##
##

to find whether the given string is palindrome or not without using inbuilt functions, print “Palindrome” if the given string is a palindrome,
else print “Not a palindrome”
Sample Input 1:
jkkj
Sample Output 1:
Palindrome
Sample Input 2:
welcome
Sample Output 2:
Not a palindrome

solution:

```
// C implementation to check if a given
// string is palindrome or not
#include <stdio.h>
#include <string.h>
```

```
int main()
{
      char str[] = { "abbba" };

      // Start from first and
      // last character of str
      int l = 0;
      int h = strlen(str) - 1;

      // Keep comparing characters
      // while they are same
      while (h > l) {
            if (str[l++] != str[h--]) {
                  printf("%s is not a palindrome\n", str);
                  return 0;
                  // will return from here
            }
      }

      printf("%s is a palindrome\n", str);

      return 0;
}
```

##
##

Write a program to convert the given string1 to uppercase and string2 to lowercase without using in-built function
Sample Input:
Hello
World
Sample Output:
HELLO
world

solution:

```
#include<stdio.h>
int main(){
    char str1[]="Hello";
    char str2[]="WoRLD";

    for(int i=0;str1[i]!='\0';i++){
        if(str1[i]>= 'a' && str1[i]<='z'){
            str1[i]=str1[i]-32;
        }

    }
    /*for(int i=0;str1[i]!='\0';i++){
        printf("%c",str1[i]);
```

```
    }*/
    //printf("%s",str1);
     for(int i=0;str2[i]!='\0';i++){
        if(str2[i]>= 'A' && str2[i]<='Z'){
            str2[i]=str2[i]+32;
        }
     }
    printf("%s\n",str1);
    printf("%s",str2);


    return 0;
}
```

##
##

write a code to check whether the given password is valid or not.

```
#include<stdio.h>
int main(){
    char str[]="Eabc@1234";
    int n,a=0,b=0,c=0,d=0;
    n=sizeof(str)/sizeof(str[0])-1; // (or) n=strlen(str)...we add
<string.h> in header file
    //printf("%d",n);
    if(n>8){
       for(int i=0;i<n;i++){
           if(str[i]>='A' && str[i]<='Z'){
               a=1;
           }
           else if(str[i]>='a' && str[i]<='z'){
               b=1;
           }
           else if(str[i]>='0' && str[i]<='9' ){
               c=1;
           }
           else if((str[i]>=32 && str[i]<=47) || (str[i]>=58 &&
str[i]<=64) || (str[i]>=91 && str[i]<=96)
           || (str[i]>=123 && str[i]<=126)){
               d=1;
           }
       }

       if(a==1 && b==1 && c==1 && d==1 ){
           printf("valid");

       }

       else{
           printf("Invalid input");
       }

     }
```

```
    else{
        printf("Invalid input");
    }
}
```

##
##

check remove duplicates in given string program