String

An array of characters is called a string. More precisely, a string is a one-dimensional array of characters terminated by a null character('\0'). We can initialize a string as:

Char name[]= " Kathmandu";

In string functions, *<string .h >* header file must be included in the program. The most commonly used string functions are as follows:

1. Strlen() : Obtain the length of string.
2. Strrev(): Reverse a string.
3. Strlwr(): Convert all characters of a string to lowercase.
4. Strupr(): Convert all characters of a string to uppercase.
5. Strcpy (): copy one string to another.
6. Strdup(): Duplicate a string.
7. Strcmp(): Compare two strings.

ect.

gets() and puts()

Functions gets() and puts() are two string functions to take string input from user and display string respectively as mentioned in previous chapter.

```
#include<stdio.h>
#include<conio.h>
 int main()
 { char name[30];
 printf("Enter name: ");
 gets(name); //Function to read string
from user. printf("Name: ");
 puts(name); //Function to display string.
return 0;
 getch();}
```

1.Program to find out length of string

```
#include <stdio.h>
#include <conio.h>
#include <string.h>
 void main()
 {
 char n[]="kathamandu Nepal";
  //printf("string supplied=%s\n",n);
  printf("length of string=%d", strlen(n));
  getch();
  }
```

WAP to store string an array and reverse to the string

```
#include <conio.h>
#include <string.h>
 void main()
 {
 char phrese[20]= "kathmandu";
 clrscr();
 printf("before strrev=%s\n",phrese);
 printf("afrer strrev=%s\n",strrev(phrese));
 printf("afrer strrev=%d\n",strlen(phrese));
 getch();
 }
```

3.

```
#include <stdio.h>
#include <conio.h>
#include <string.h>
 void main()
 {
 char address[20],len;
 clrscr();
 puts("\n\nenter the address.....");
 gets(address);
 len=strlen(address);
 printf("length=%s=%d",address, len);
 getch();
 }
```

Write a program to copy one string to another.

```
#include <stdio.h>
#include <conio.h>
#include <string.h>
 void main()
 {
 char address[20], location[20];
 clrscr();
 puts("\n\n\tenter the address");
 gets(address);
 strcpy(location, address);
 printf("\ncopy value ");
 puts (location);
 getch();
```

```
#include <stdio.h>
#include <conio.h>       //input two strings and compare  them
#include <string.h>
void main()
            {
            char x[10]={ "Diksha"};
            char y[10]={“Diya1234"};
            char name[10];
            char password[10];

            clrscr();
            puts("enter the name");
            gets(name);
            puts("enter the pass word ");
            gets(password);
            //strcpy(b,a);
            //strrev(a);
            if(strcmp(name,x)==0 && strcmp (password,y)==0)
                        printf("wellcome");
                    else
                  printf("not allowed");
            getch();
            }
```

WAP to find out if the input string is palindrome or not

```
#include <stdio.h>
#include <conio.h>
#include <string.h>
void main()
 {
 char a[10],b[10];
 clrscr();
 puts("enter the word palendrom");
 gets(a);
 strcpy(b,a);
 strrev(a);
 if(strcmp(a,b)==0)
 printf("palindrom");
 else
 printf("not plandrom");
 getch();
 }
```

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```
#include <stdio.h>
#include <conio.h>
#include <string.h>
void main()
 {
 char a[25];
 int v=0,c=0,l,i;
  clrscr();
  puts("enter the word");
  gets(a);
  strlwr(a);
  l=strlen(a);
  printf("lenth=%d\n",l);
  i=0;
  while(a[i]!='\0')
   {
   if(a[i]=='a'||a[i]=='e'||a[i]=='o'||
a[i]=='u'|| a[i]=='i')
      v=v+1;
   else
   c=c+1;
  i++;
   }
printf("consonant=%d",c);
   printf("vowel=%d",v);
   getch();
   }
```