✅ Day : Strings (7-8-2025)

1. Write a program to find the length of a string without using strlen().

IPO

Input : get a value as input

Process: to find the length of a string by the if condition

Str[i]!=:'\0' to print the length of the input

Output: output the length of input

Program:

#include<stdio.h>

void main()

{

   char str1[10]="welcome";

   int i,count=0;

   printf("%s",str1);

   for(i=0;i<10;i++)

   {

     if(str1[i]!='\0')

     count++;

   }

   printf("%d\n",count);

}

Output

welcome7

2. Write a program to copy one string to another.

IPO

Input : get a value as input

Process: to program the given input to copy one string to another by copying str1 to str2.

Output: output the str2 same like str 1Program:

```c
#include<stdio.h>
void main()
{
   char str1[10]="welcome";
   char str2[10];
   int i;
   for(i=0;i<10;i++)
   {
      str2[i]=str1[i];
   }
   printf("%s",str2);
}
```

Output

```
welcome
```

3. Write a program to concatenate two strings.

IPO

Input : get two value as input

Process: to program the concatenate two strings , like for eg

      If str1 is welcome then str2 is home means in str3 it has to print
in   the format welcome home

Output: output the concatenate two strings

Program:

```c
#include<stdio.h>
void main()
{
  char str1[10]="welcome";
  char str2[6]="homes";
  char str3[11];
  int i;
  for(i=0;i<10;i++)
  {
    str3[i]=str1[i];
  }
  printf("%s",str1);
  {
  str3[i]=str2[i];
  }
    printf("%s",str2);
}
```

4. Write a program to compare two strings

Input : get two values as input

Process: to program to compare two strings

Output: output the greatest

Program:

```c
#include<stdio.h>
void main()
{
   int count1=0,count2=0,flag=0,i;
   char str1[30],str2[30];
   while (str1[count1]!='\0')
   count1++;
   while (str2[count2]!='\0')
   count2++;

    i=0;
   while(str1[i]==str2[i]&&str1[i]!='\0')
   {
      i++;
   }
   if (str1[i]>str2[i])
      printf("str1 is greater than str2\n");
   else if(str1[i]<str2[i])
```

```
        printf("str2 is greater than str1\n");

    else

      printf("both str are equal\n");

}
```

5. Write a program to count vowels and consonants in a string.

IPO

Input : to get values as input

Process: to program to count the vowels and consonants in a string

Output: output the vowels and consonants in a sting

Program:

```
#include<stdio.h>

void main()

{

    char str1[15]="welcome To SEE";

    int i,count=0,vcount=0;

    printf("%s",str1);

    for(i=0;i<15;i++)

    {

if((str1[i]=='a')||(str1[i]=='e')||(str1[i]=='i')||(str1[i]=='o')||(str1[i]=='u'))

        vcount++;

      else

      {

        count++;
```

```
  }
 }
 printf("vcoount=%d\ncount=%d\n",vcount,count);
```

7. Write a program to check if a string is palindrome.

IPO

Input : get a value a value as input

Process: to program string is palindrome by considering flag==0

Str1[i]=str[i];

Output: output the program to string is palindrome

Program:

```
#include <stdio.h>
#include <string.h>

void main() {
    char a[] = "mom";
    char b[10];
    int i, len, flag = 0;

    len = strlen(a);

    for (i = 0; i < len; i++) {
        b[i] = a[len - 1 - i];
    }
    b[len] = '\0'; // Null-terminate the reversed string
```

```
    for (i = 0; i < len; i++) {

        if (a[i] != b[i]) {

            flag = 1;

            break;

        }

    }


    if (flag == 0)

        printf("Palindrome");

    else

        printf("Not a palindrome");

}
```

Output

Not a palindrome

8. Write a program to reverse a string.

IPO

Input : get a value as input

Process: to program to reverse a string by

        Str3[i]=str[l]

Output: output the value as reverse a string of given input

Program:

#include<stdio.h>

```c
void main()
{
    char str1[10]="welcome";

    char str2[10];

    char str3[10];

    int i;

    for(i=0;i<10;i++)

    {
        str2[i]=str1[i];

    }

    printf("%s",str1);

    int l=6;

    for(i=0;i<7;i++)

    {
        str3[i]=str1[l];

        l--;

    }

    printf(" %s",str3);

}
```

Output

```
welcome emoclew
```

9. Write a program to count words in a string.

IPO

Input : get a value as input

Process: to program the count words in a string

By the condition Str1[i]=' '

Output: output the words count in input

Program:

```c
#include<stdio.h>
void main()
{
    char str1[20]="welcome to all";
    int i,count=0,a;
    printf("%s",str1);
    for(i=0;i<20;i++)
    {
        a=str1[i];
        if(str1[i]==' ')
        count++;
    }
    printf(" %d\n",count+1);
}
```

Output

```
welcome to all 3
```

10. Write a program to find the frequency of each character in a string.

Input:to get a value as input

Process:a[i]==b[j], flag==0

Output:frequency of each in string

Program:

```c
#include<stdio.h>
void main()
{
    int a[5]={1,2,1,2,3};
    int b[5];
    b[0]=a[0];
    int flag=0,i,j,k=0;
    for (i=0;i<5;i++)
    {
        flag =0;
        for (j=0;j<5;j++)
        {
            if(a[i]==b[j])
            {
                flag=1;break;
            }
        }
        if (flag==0)
        {
            b[k]=a[i];
            k++;
        }
    }
```

```c
int count=0;
for (i=0;i<k;i++)
 {
   count=0;
   for(j=0;j<5;j++)
   {
      if(b[i]==a[j])
      count++;
   }
   printf("%d-%d\n",b[i],count);
 }
}
```

Output
2-2
1-2
3-1