**Assignment # 9**

Strings

1. WAP to find the length of a given string without using a library function.
2. WAP to copy the content of a given string to another without using a library function.
3. WAP to reverse a given string without using a library function.
4. WAP to concatenate two given strings without using a library function.
5. WAP to compare two given strings without using a library function.
6. WAP to convert all characters in a given string to uppercase.
7. WAP to find the number of vowels, consonants, digits and white spaces in a given string.
8. WAP to count the number of words in a given line of text.
9. WAP to check whether a given word is palindrome or not.
10. WAP to sort n number of strings in lexicographical order (dictionary order).



1).

```
#include<stdio.h>
int main()
{
   char str1[30],i,count;
   puts("enter a string ...");
   gets(str1);
   for(i =0; str1[i]!='\0' ;++i);
   count=i;
   printf("the length of string is %d\n",count);
   return 0;
}
```

2).

```
 #include<stdio.h>
int main()
{
   char a[100],b[100],i;
```

```
    puts("enter a string ...");
    gets(a);
    puts("the copied string in another string 2  is....");
    for(i=0; a[i] !='\0';++i)
    {
       b[i]=a[i];
    }
    puts(b);
    return 0;
}
```

3).

```
#include <stdio.h>
int main() {
    char s1[100], s2[100], i,len,j;
    printf("Enter string s1: ");
    gets(s1);
    for(i=0;s1[i]!=0;i++){}
    for (j =i-1; j>=0; j--) {
    printf("%c", s1[j]);}
    return 0;
}
```

4).

```
 #include<stdio.h>
#include<string.h>
int main()
{
    char a[100],b[100];
    int i,j;
    puts("enter a string ...");
    gets(a);
    puts("ente a second string...");
    gets(b);
    i=strlen(a);
    for(j=0;a[j] != '\0';i++,j++)
```

```
    {
       a[i]= b[j];
    }
    a[i] !='\0';
    printf("the concentration is : %s",a);
    return 0;
}
```

5).

```
#include<stdio.h>
int main()
    {
      char s1[100],s2[100];
      int i,j;
      puts("enter a string ...");
      gets(s1);
      puts("enter a 2nd string ...");
      gets(s2);
      i=0;
  while(s1[i] == s2[i] && s1[i]!='\0')

     i++;
     if (s1[i]>s2[i])
     printf("s1>s2");
     else if (s1<s2)
   printf("s2>s1");
   else
   printf("s1=s2");
   return 0;
    }
```

6).

```
 #include<stdio.h>
#include<string.h>
int main()
{
```

```
   char str1[100];
   int i,j;
   printf("enter a string to upper case ...\n");
   gets(str1);
   printf("the upper case string is :%s",strupr(str1));
   return 0;
}
```

7).

```
#include<stdio.h>
int main()
{
   char line[100];
   int i,cons=0,vowel=0,space=0,digit=0;
   printf("enter a string...");
   gets(line);
   for(i=0;line[i]!='\0';i++)
   {
      if(line[i] =='a'  ||  line[i] =='e'  || line[i]=='i' ||line[i]=='o'  ||
line[i]=='u'||
      line[i] =='A'|| line[i] =='E'|| line[i] =='I'|| line[i] =='O'|| line[i] =='U')
{++vowel;}
    else if((line[i]>'a' && line[i]<'z')||(line[i]>'A' && line[i]<'Z'))   { ++cons;}
    else if (line [i]>='0' && line[i]<='9') {++digit;}
   else if (line[i]=' ') {++space;}
   }
   printf("the vowel is %d\n", vowel);
   printf("the consonant is %d\n",cons);
   printf("the digit is %d\n,",digit);
   printf("the space is %d\n",space);
   return 0;
}
```

8).

```
#include<stdio.h>
int main()
```

```
{
   char str1[100];
   int i,c=0;
   printf("write a statements:\n");
   gets(str1);
   for(i=0; str1[i]!='\0';i++)
   {
    if(str1[i]==' ')
    {
       c++;
    }
   }
   printf(" \n number of words = %d",c+1);
   return 0;
}
```

9).

```
#include<stdio.h>
#include<string.h>
int main()
{
   char str1[10],str2[10];
   int cmp;
   printf("enter a string for palidrome \n ");
   gets(str1);
   strcpy(str2,str1);
    strrev(str1);
   printf("the reverse  palindrome number is: %s",str1);
   cmp=strcmp(str1,str2);
   if (cmp==0)
   {
      printf("\nthe string  is palindrome ");
   }
   else{
      printf("\nthe string is not pandrome");
```

```
    }

    return 0;
}
```

10).

```
#include <stdio.h>
#include <string.h>
#define size 20
int main()
{
  char str[size][size],temp[size];
  int n,i,j;
  printf("Enter a number of string \n");
  scanf("%d",&n);
   printf("enter a string :\n");
   for(i=0;i<n;++i)
   {
     printf("%d)",i+1);
     scanf("%s",str[i]);
   }
   for(i=0;i<n-1;++i){
     for(j = 0;j < n - 1 - i;++j)
     {
       if(strcmp(str[j],str[j+1] )>0)
       {
         strcpy(temp,str[j]);
         strcpy(str[j],str[j+1]);
         strcpy(str[j+1],temp);
       }
     }
   }
   printf("string in alphabetical order :\n ");
   for(i=0;i<n;++i)
   printf("%d)  %s\n",i+1,str[i]);
```

```
    return 0;
}
```