1.Write a program to calculate the length of the string. (without using built-in method).

#include<stdio.h>

#include<string.h>

int main()

{

   int i,count=0;

   char str[20];

   printf("Enter a string: ");

   fgets(str,20,stdin);

   for(i=0;str[i];i++)

     count ++;

   printf("Length of the string is %d", count);

}

2. Write a program to count the occurrence of a given character in a given string.

#include<stdio.h>

#include<string.h>

int main()

{

   int i,count=0;

   char c, str[20];

   printf("Enter a string: ");

   fgets(str,20,stdin);

   printf("Enter a character: ");

   scanf("%c",&c);

   for(i=0;str[i];i++)

     if(str[i]==c)

        count ++;

   printf("Occurence of character is  %d", count);

}

3. Write a program to count vowels in a given string.

#include <stdio.h>

#include <string.h>

int main()

{

   int i = 0, count = 0;

   char str[20];

   printf("Enter a string: ");

   fgets(str, 20, stdin);

   while (str[i])

   {

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

         count++;

      i++;

   }

   printf("Occurence of vowel is  %d", count);

}

4. Write a program to convert a given string into uppercase.

#include <stdio.h>

#include <string.h>

int main()

{

   int i = 0, count = 0;

   char str[20];

   printf("Enter a string: ");

   fgets(str, 20, stdin);

   strupr(str);

   printf("upper: %s", str);

}

5. Write a program to convert a given string into lowercase.

#include <stdio.h>

#include <string.h>

int main()

{

   int i = 0, count = 0;

   char str[20];

   printf("Enter a string: ");

   fgets(str, 20, stdin);

   strlwr(str);

   printf("upper: %s", str);

}

6. Write a program to reverse a string.

#include <stdio.h>

#include <string.h>

int main()

{

   int i = 0, count = 0;

   char str[20];

   printf("Enter a string: ");

   fgets(str, 20, stdin);

   strrev(str);

   printf("upper: %s", str);

}

7. Write a program in C to count the total number of alphabets, digits and special characters in a string.

#include <stdio.h>

#include <string.h>

int main()

{

  int i = 0, alp = 0, digit = 0, spch = 0;

  char str[200];

  printf("Enter a string: ");

  fgets(str, 200, stdin);

  while (str[i])

  {

    if ((str[i] >= 'a' && str[i] <= 'z') || (str[i] >= 'A' && str[i] <= 'Z'))

      alp++;

    else if (str[i] >='0' && str[i] <= '9')

      digit++;

    else

      spch++;

    i++;

  }

  printf("Alphabets is %d Digit is %d Special charater is %d", alp, digit, spch);

}

8. Write a program in C to copy one string to another string.

#include <stdio.h>

#include <string.h>

int main()

{

  int i = 0, alp = 0, digit = 0, spch = 0;

  char str[200],str2[200];

  printf("Enter a string: ");

  fgets(str, 200, stdin);

  strcpy(str2,str);

  printf("Copy string is %s", str2);

}

9. Write a C program to sort a string array in ascending order.

#include <stdio.h>

#include <string.h>

int main()

{

  int i,j,temp;

  char str[200],str2[200];

  printf("Enter a string: ");

  fgets(str, 200, stdin);

  for (i = 0; str[i]; i++) {

      for (j = i+1; str[j]; j++) {

         if (str[i] > str[j]) {

            temp = str[i];

            str[i] = str[j];

            str[j] = temp;

         }

      }

  }

  printf("string after sorting is %s",str);

}

10. Write a program in C to Find the Frequency of Characters.