1. Program to Find the Frequency of Characters in a String

#include <stdio.h>

#include <string.h>

int main()

{

char str[1000],ch;

int i,count=0;

printf("Enter a string:");

gets(str);

printf("Enter a charater:");

ch=getchar();

for(i=0;i<strlen(str);i++)

{

if(ch==str[i])

count++;

}

printf("The frequency of charater is %d",count);

return 0;

}

Output:

**Enter a string:**abcdef

**Enter a charater:**e

**The frequency of charater is 1**

**Enter a string:**geraggaergrgergeg

**Enter a charater:**g

**The frequency of charater is 7**

1. [Program to Find the Number of Vowels, Consonants, Digits and White space in a String](http://www.programiz.com/c-programming/examples/vowel-consonant-frequency-string)

#include <stdio.h>

#include <string.h>

int main()

{

char str[100];

int i,len,vowel=0,consonants=0,digits=0,ws=0;

printf("Enter a string: ");

gets(str);

len=strlen(str);

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

{

if(str[i]=='a'||str[i]=='e'||str[i]=='i'||str[i]=='o'||str[i]=='u'||str[i]=='a'||str[i]=='A'||str[i]=='E'||str[i]=='I'||str[i]=='O'||str[i]=='U')

vowel++;

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

consonants++;

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

digits++;

else if(str[i]==' ')

ws++;

}

printf("Vowels: %d",vowel);

printf("\nConsonants: %d",consonants);

printf("\nDigits: %d",digits);

printf("\nWhite spaces: %d", ws);

return 0;

}

output:

**Enter a string:** htytyry64t4gre4545oi

**Vowels: 3**

**Consonants: 10**

**Digits: 1**

**White spaces: 0**

Question:

If vowel and ws don’t have initial value, the output wil be wrong:

int i,len,vowel,consonants,digits,ws;

**Enter a string:** grgergergrt5345t3 gthtrgr

**Vowels: 1606416242**

**Consonants: 17**

**Digits: 1**

**White spaces: 32768**

**Why?**

1. Program to Concatenate Two Strings without using strcat()

#include <stdio.h>

#include <string.h>

int main()

{

char str1[100],str2[100],strall[200];

int i,len;

printf("Enter a string1: ");

gets(str1);

printf("Enter a string2: ");

gets(str2);

for(i=0;i<strlen(str1);i++)

{

strall[i]=str1[i];

}

len=strlen(str1);

for(i=0;i<strlen(str2);i++)

{

strall[i+len]=str2[i];

}

puts(strall);

return 0;

}

Output:

**Enter a string1:** abc

**Enter a string2:** efg

**abcefg**

1. Program to check whether the given string is palindrome or not. If it’s a palindrome program should print “**palindrome**” otherwise print “**not a palindrome**”

Sample 1:

**Input:** madam

**Output:** palindrome

Sample 2:

**Input:** Citrix

**Output:** not a palindrome

#include <stdio.h>

#include <string.h>

int main()

{

char str[100];

int i,len;

printf("Enter a string: ");

gets(str);

len=strlen(str);

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

{

if(str[i]!=str[len-1-i])

{

printf("not a palindrome");

break;

}

}

if(i==len)

printf("palindrome");

return 0;

}

output:

**Enter a string:** madam

**palindrome**

**Enter a string:** Citrix

**not a palindrome**

1. Program to convert all the lowercase letters to uppercase and all uppercase letters to lowercase letter, for the given string “CiTriX”

Sample1:

**Input**: CiTriX

**Output**: cItRIx

#include <stdio.h>

#include <string.h>

int main()

{

char str1[100],str2[100];

int i;

printf("Enter a string: ");

gets(str1);

for(i=0;i<strlen(str1);i++)

{

if(str1[i]>='a'&&str1[i]<='z')

str2[i]=str1[i]-32;

else if(str1[i]>='A'&&str1[i]<='Z')

str2[i]=str1[i]+32;

else

str2[i]=str1[i];

}

puts(str2);

}

Output:

**Enter a string:** Hello Bead 12345

**hELLO bEAD 12345**