Assignment - 17

A Job Ready Bootcamp in C++, DSA and IOT

String Basics in C Language

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

#include<stdio.h>

int main()

{

char str[10];

int i;

printf("Entter a string");

gets(str);

for(i=0;str[i]!=0;i++);

printf("Length is %d ",i);

return 0;

}

Output:Enter a string Ritik

Length is 5

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

#include<stdio.h>

#include<string.h>

int main()

{

char str[20],c;

int t,i;

printf("Enter your string\n");

gets(str);

printf("Enter your character that you want to count\n");

scanf("%c",&c);

for(i=0;str[i];i++)

{

if(str[i]==c)

t++;

}

printf("%c is comes in array %d times",c,t);

return 0;

}

Output:Enter a string Chandraprakash

‘ A‘ is comes 4 times in givin string

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

#include<stdio.h>

int main()

{

char str[20];

int count=0,i;

printf("Enter a string\n");

fgets(str,20,stdin);

for(i=0;str[i]!=0;i++)

{

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

count++;

}

printf("%d vowels are present in givin string",count);

return 0;

}

Output:Enter your string Shanvi

2 vowels are present in givin string

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

#include<stdio.h>

int main()

{

char str[20];

int count=0,i;

printf("Enter a string\n");

fgets(str,20,stdin);

strupr(str);

printf("Givin srring in upper case is %s",str);

return 0;

}

OutputEnbter your string ritik kushwaaha

Givin srring in upper case is RITIK KUSHWAHA #include<stdio.h>

1. Write a program to convert a given string into lower case

int main()

{

char str[20];

int count=0,i;

printf("Enter a string\n");

fgets(str,20,stdin);

strlwr(str);

printf("Givin srring in lower case is %s",str);

return 0;

}

Output:Enter your ssttring RITIK KUSHAHA

Givin string in lower case is ritik kuswaha

1. Write a program to reverse a string

#include<stdio.h>

int main()

{

char str[20];

int count=0,i;

printf("Enter a string\n");

fgets(str,20,stdin);

strrev(str);

printf("Givin srring in reverse order is %s",str);

return 0;

}

Output:Enter your string

Ritik Kushwaha

Givin string in ruiversee order is ahawhsuK kitiR

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

#include<stdio.h>

int main()

{

char str[20];

int count=0,count1=0,count2=0,i;

printf("Enter a string with adding special character, alphabet and digits \n");

fgets(str,20,stdin);

for(i=0;str[i]!=0;i++)

{

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

count++;

if(str[i]>='!'&&str[i]<='/')

count1++;

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

count2++;

}

printf("Total number of alphabets is %d,special character is %d and digit is %d",count,count1,count2);

return 0;

}

Output: Enter a string with adding special character, alphabet and digits

Ritik1123

Total number of alphabets is 5,special character is 0 and digit is 4

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

#include<stdio.h>

#include<string.h>

int main()

{

char str[20];

char temp[20],i,n;

printf("Enter string");

fgets(str,20,stdin);

strcpy(temp,str);

printf("Coppy string is %s",temp);

return 0;

}

Output:Enter string Ritik

Copy string is Ritik

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

#include<stdio.h>

int main()

{

char a[20],temp;

int i,j;

printf("Enter string\n");

scanf("%s",a);

for(i=0;i<strlen(a)-1;i++)

{

for(j=i+1;j<strlen(a);j++)

{

if(a[i]>a[j]){

temp=a[i];

a[i]=a[j];

a[j]=temp;

}}

}

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

{

printf("%c",a[i]);

}

return 0;

}

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

#include<stdio.h>

int main()

{

char a[20];

int i,j,freq[150]={0};

printf("Enter string\n");

scanf("%s",a);

for(i=0;a[i]!='\0';i++)

{

freq[a[i]]++;

}

for(i=0;i<150;i++)

{

if(freq[i]!=0)

printf("%c => %d\n",i,freq[i]);

}

return 0;

}