Assignment – 18

String and Functions in C Language

1. Write a function to calculate length of the string ?

Solve –

#include<stdio.h>

#include<string.h>

void f1( char str[],int size);

int main(){

char str[10]="sagar";

f1(str,5);

return 0;

}

void f1( char str[],int size){

int i=0, count =0;

while(str[i]!='\0'){

count++;

i++;

}

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

}

Output –

length of string is 5

2. Write a function to reverse a string ?

Solve -

#include<stdio.h>

#include<string.h>

void f1(char str[],int size);

int main(){

char str[10]="sagar";

f1(str,5);

return 0;

}

void f1( char str[],int size){

int i=0,j=strlen(str)-1;

while(i<=j){

int temp = str[i];

str[i]=str[j];

str[j]=temp;

i++;

j--;

}

printf("%s",str);

}

Output-

Ragas

3. Write a function to compare two strings ?  
solve –

#include<stdio.h>

#include<string.h>

int compare( char s1[10],char s2[10]);

int main(){

int c;

char s1[20];

char s2[20];

printf("Enter the first string : ");

scanf("%s",s1);

printf("Enter the second string : ");

scanf("%s",s2);

c= compare(s1,s2);

if(c==1){

printf("same string");

}

else{

printf("not same string");

}

return 0;

}

int compare( char s1[10],char s2[10]){

int i=0,flag=0;

while(s1[i]!='\0'&&s2[i]!='\0'){

if(s1[i]!=s2[i]){

flag=1;

break;

}

i++;

}

if(flag==0){

return 1;

}

else{

return 0;

}

}

Output –

Enter the first string : dada

Enter the second string : asa

not same string

4. Write a function to transform string into uppercase ?  
solve -

#include<stdio.h>

#include<string.h>

int f1(char str[10]);

int main(){

char str[10]="sagar";

f1(str);

return 0;

}

int f1( char str[10]){

int i=0,flag=0;

while(str[i]!='\0'){

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

str[i]= str[i]-32;

i++;

}

}

printf("%s",str);

}

Output-

SAGAR

5. Write a function to transform a string into lowercase ?

Solve –

#include<stdio.h>

#include<string.h>

int f1(char str[10]);

int main(){

char str[10]="SAGAR";

f1(str);

return 0;

}

int f1( char str[10]){

int i=0;

while(str[i]!='\0'){

if(str[i]>='A'&& str[i]<='Z'){

str[i]= str[i]+32;

i++;

}

}

printf("%s",str);

}

Output –

Sagar

6. Write a function to check whether a given string is an alphanumeric string or not.

(Alphanumeric string must contain at least one alphabet and one digit ) ?

Solve -

#include<stdio.h>

#include<string.h>

int f1( char str[100]);

int main(){

char str[100];

int t=1;

printf("Enter the string ");

gets(str);

if(t==f1(str)){

printf("%s it is alphanumerical string",str);

}

else{

printf(" %s it is no alphanurical string",str);

}

return 0;

}

int f1( char str[100]){

int i, A=0,d=0,t;

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

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

A=1;

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

d=1;

}

if(A==1 && d==1){

return 1;

}

else{

return 2;

}

}

Output –

Enter the string 12a@@@@@@@@@

12a@@@@@@@@@ it is alphanumerical string

8. Write a function to count words in a given string ?

Solve –

#include<stdio.h>

#include<string.h>

int f1( char str[10]);

int main(){

char str[100];

printf("Enter the string ");

gets(str);

printf(" counting words are %d", f1(str));

return 0;

}

int f1( char str[10]){

int i,count=0;

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

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

count++;

}

}

return count;

}

Output -

Enter the string sas asa sas as

counting words are 4

Write a function to check whether a given string is palindrome or not ?

Solve –

#include<stdio.h>

#include<string.h>

int f1( char str[20]);

int main(){

char str[20];

int t;

printf("Enter the string ");

gets(str);

t=f1(str);

if(t==1){

printf("not pelindrome");

}

else{

printf(" pelindrome");

}

return 0;

}

int f1( char str[20]){

int i=0,j=strlen(str)-1,flag=0;

while(str[i]!='\0'){

if(str[i]!=str[j]){

flag=1;

break;

}

i++;

j--;

}

if(flag==1){

return 1;

}

else{

return 2;

}

}

Output -

Enter the string madam

Palindrome

9. Write a function to reverse a string word wise. (For example if the given string is

“Mysirg Education Services” then the resulting string should be “Services Education

Mysirg” ) ?  
solve –