Assignment – 18

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

String and Functions in C Language

1. Write a function to calculate length of the string

#include<stdio.h>

#include<string.h>

char length(char []);

int main()

{

char a[20];

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

return 0;

}

char length(char b[])

{

int l=0,i=0;

printf("Enter string\n");

scanf("%s",b);

while(b[i])

{

i++;

l++;

}

return l;

}

1. Write a function to reverse a string.

#include<stdio.h>

#include<string.h>

void revers(char []);

int main()

{

char a[20];

revers(a);

return 0;

}

void revers(char b[])

{

int l=0,i,j;

char temp;

printf("Enter string\n");

scanf("%s",b);

l=strlen(b);

for(j=l;j>=0;j--)

{

temp=b[j];

printf("%c",temp);

}

}

1. Write a function to compare two strings.

#include<stdio.h>

#include<string.h>

void comp(char [], char []);

int main()

{

char a[100],b[100];

comp(a,b);

return 0;

}

void comp(char x[],char y[])

{

char r;

printf("Enter first string ");

fgets(x,100,stdin);

printf("Enter second string ");

fgets(y,100,stdin);

r=strcmp(x,y);

printf("%d",r);

}

1. Write a function to transform string into uppercase

#include<stdio.h>

#include<string.h>

void lower(char [],char []);

int main()

{

char a[100];

char temp[100];

printf("Enter string");

gets(a);

lower(a,temp);

return 0;

}

void lower(char b[],char c[])

{

int i,l;

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

{

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

c[i]=b[i]-32;

}

printf("%s",c);

}

1. Write a function to transform a string into lowercase

#include<stdio.h>

#include<string.h>

void lower(char [],char []);

int main()

{

char a[100];

char temp[100];

printf("Enter string");

gets(a);

lower(a,temp);

return 0;

}

void lower(char b[],char c[])

{

int i,l;

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

{

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

c[i]=b[i]+32;

}

printf("%s",c);

}

1. 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)

#include<stdio.h>

#include<string.h>

void alpha\_num(char []);

int main()

{

char a[20];

int b;

printf("Enter a string ");

gets(a);

alpha\_num(a);

return 0;

}

Void alpha\_num(char str[])

{

int i,a,n;

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')

n=1;

}

if(a==n)

printf("Alphanumeric string");

else

printf("Not alphanumeric");

}

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

#include<stdio.h>

#include<string.h>

int palindrom(char []);

int main()

{

char str[25];

printf("Enter string ");

gets(str);

if(palindrom(str))

printf("Palindrom");

else

printf("Not palindrom");

}

int palindrom(char a[])

{

int l,i;

l=strlen(a);

for(i=0;i<l/2;i++)

{

if(a[i]!=a[l-1-i])

{

return 0;

break;

}

}

if(i==l/2)

return 1;

}

1. Write a function to count words in a given string

#include<stdio.h>

#include<string.h>

int count\_word(char []);

int main()

{

char str[30];

printf("Enter your string ");

gets(str);

printf("Words in givin string is %d",count\_word(str));

return 0;

}

int count\_word(char a[])

{

int count=1,i;

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

{

if(a[i]==' '&&a[i+1]!=' ')

count++;

}

return count;

}

1. 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” )

#include<stdio.h>

#include<string.h>

void swap(char [],int ,int);

int main()

{

char a[20];

int i=0,start=0,end=0,flag=0;

printf("Enter string ");

gets(a);

while(a[i]!='\0')

{

while(a[i]!=' ')

{

if(a[i]=='\0'){

flag=1;

break;

}

end++;

i++;

}

swap(a,start,end-1);

if(flag==1)

break;

start=end++;

i++;

}

swap(a,0,i-1);

printf("%s ",a);

return 0;

}

void swap(char a[],int i,int j)

{

char temp;

while(i<=j)

{

temp=a[i];

a[i]=a[j];

a[j]=temp;

i++;

j--;

}

}

10. Write a function to find the repeated character in a given string

#include<stdio.h>

#include<string.h>

char Word\_Count(char []);

int main()

{

char count[100];

printf("In givin string there are %d words",Word\_Count(count));

return 0;

}

char Word\_Count(char b[])

{

int l,i,count=1;

printf("Enter string ");

fgets(b,100,stdin);

l=strlen(b);

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

{

if(b[i]==' '&&b[i+1]!=' ')

count++;

}

return count;

}