Assignement 18

1. Write a function to calculate length of the string

Program;

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

#include<iostream>

#include<cstring>

using namespace std;

int length(char str[])

{

    int count=0;

    for(int i=0; str[i]!='\0'; i++)

    {

        count++;

    }

    return count;

}

int main()

{

    char str[100];

    cout<<"enter the string: ";

    gets(str);

    cout<<"the length of the string is "<<length(str)<<endl;

    return 0;

}

Output:

enter the string: tushar maliye

the length of the string is 13

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1. Write a function to reverse a string.

Program:

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

#include<iostream>

#include<cstring>

using namespace std;

void reverse\_string(char str[], int length)

{

    for (int i=(length-1); i>=0;i--)

    {

        cout<<str[i];

    }

}

int main()

{

    char str[100];

    cout<<"enter the string: ";

    gets(str);

    int length= strlen(str);

    cout<<"the reverse string is : ";

    reverse\_string(str, length);

    return 0;

}

Output:

enter the string: tushar

the reverse string is : rahsut

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1. Write a function to transform string into uppercase

Program;

#include<iostream>

#include<cstring>

using namespace std;

void Upper\_case(char str[], int length)

{

    char ch;

    for(int i=0; i<length; i++)

    {

        ch=toupper(str[i]);

        cout<<ch;

    }

}

int main()

{

    char str[100];

    cout<<"emter the string: "<<endl;

    gets(str);

    cout<<"the upper case :"<<endl;

    int length= strlen(str);

    Upper\_case(str, length);

    return 0;

}

Output;

emter the string:

tushar

the upper case :

TUSHAR

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

Program;

#include<iostream>

#include<cstring>

using namespace std;

int check(char str[])

{

    int length = strlen(str);

    int alpha=0, digit=0, i;

    for( i=0; i <length; i++)

    {

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

           {

                alpha++;

           }

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

         {

            digit++;

         }

    }

    if(alpha>=1 && digit>=1)

        return 1;

    else

        return 0;

}

int main()

{

    char str[100];

    cout<<"emter the string: "<<endl;

    gets(str);

    if(check(str)==1)

    {

        cout<<" Yes, the given string is alphhanumeric."<<endl;

    }

    else

        cout<<"the given string is not alphanumeric."<<endl;

    return 0;

}

emter the string:

tusahr09

Yes, the given string is alphhanumeric.

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

Input:

#include<iostream>

#include<cstring>

using namespace std;

void reverse\_string(char str1[], char str2[])

{

    int length= strlen(str1);

    for(int i=0;i<length;i++)

    {

        str2[i]=str1[length-1-i];

    }

}

int check\_palindrome(char str1[],char str2[])

{

    int length1= strlen(str1);

    int length2=strlen(str2);

    int count=0;

    if(length1 != length2)

        return -1;

    else

    {

        for(int i=0; i<length1;i++)

        {

            if(str1[i]==str2[i])

            {

                count++;

            }

        }

    }

    if(count==length1)

    {

        return 1;

    }

    else

        return -1;

}

int main()

{

    char str1[100],str2[100];

    cout<<"enter the string: "<<endl;

    gets(str1);

    reverse\_string(str1,str2);

    int flag = check\_palindrome(str1,str2);

    if(flag==1)

    {

        cout<<"the given string is palindrome"<<endl;

    }

    else

    {

        cout<<"the given string is not a palindrome."<<endl;

    }

return 0;

}

Output:

enter the string:

radar

the given string is palindrome

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

#include<iostream>

#include<cstring>

using namespace std;

int main()

{

    char str[100];

    cout<<"enter the string: "<<endl;

    gets(str);

    int count=1;

    for(int i=0;i<strlen(str);i++)

    {

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

        {

            count++;

        }

    }

    cout<<"total words are: "<<count;

return 0;

}

enter the string:

enter the string:

tushar maliye is my number.

total words are: 5

PS C:\Users\tusha\Documents\coadind>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” )

#include<iostream>

#include<cstring>

using namespace std;

void print(char str[], int x, int y)

{

    for(int i=x; i<=y;i++)

    {

        cout<<str[i];

    }

    cout<<" ";

}

void reverse\_words(char str[])

{

 int len= strlen(str);

 int j=len-1;

 for(int i=(len-1);i>=0;i--)

 {

    if(str[i]==' ' || i==0)

    {

        if(i==0)

            print(str,i,j);

        else

            print(str,i+1,j);

        j=i-1;

    }

 }

}

int main()

{

    char str[100];

    cout<<"enter the string: "<<endl;

    gets(str);

    reverse\_words(str);

return 0;

}

Output:

enter the string:

MysirG Education Service

Service Education MysirG

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