#include<iostream>

#include<string>

using namespace std;

string concat(string,string);// to concatenate two strings (a)

void substring(string,string);//to find a substring (b)

string toLowerCase(string); //to lower and to upper (d)

string toUpperCase(string);

void splitString(string,int); //to split a string

int main()

{

string str1,str2;

int pos;

cout<<"Enter two string to concatenate \n"<<endl; //to concatenate two strings

getline(cin,str1);

getline(cin,str2);

str1=concat(str1,str2);

cout<<"The concatenated string is\n"<<str1<<endl;

cout<<"Enter string 1\n"<<endl;

getline(cin,str1);

cout<<"Enter the substring to find in string 1"<<endl; //to find substring

getline(cin,str2);

substring(str1,str2);

cout<<"Enter a string to split in to two\n"; //to split a string

getline(cin,str1);

cout<<"Enter the position to split\n";

cin>>pos;

splitString(str1,pos);

cout<<"Enter a string to upper case it\n"<<endl; //to upper case

getchar();

getline(cin,str1);

str1=toUpperCase(str1);

cout<<"the updated string is : "<<str1<<endl;

cout<<"Enter a string to lower case it\n"<<endl; //to lower case

getline(cin,str1);

str1=toLowerCase(str1);

cout<<"the updated string is : "<<str1<<endl;

return 0;

}

string concat(string str1,string str2)

{

return str1+str2;

}

void substring(string str1,string str2)

{

int i=0,j=0;

while(i<str1.length())

{

j=0;

if(str1[i]==str2[j])

{

int k=i;

k++;

j++;

while(j<str2.length()&&k<str1.length())

{

if(str1[k]==str2[j])

{

k++;

j++;

}

}

if(j==str2.length())

{

cout<<"The substring is found at "<<i+1<<endl;

return;

}

}

i++;

}

cout<<"Substring entered is not found in the string 1\n"<<endl;

return;

}

string toUpperCase(string str1)

{

for(int i=0;i<str1.length();i++)

{

if(str1[i]>=97)

{

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

}

}

return str1;

}

string toLowerCase(string str1)

{

for(int i=0;i<str1.length();i++)

{

if(str1[i]>=65&&str1[i]<97)

{

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

}

}

return str1;

}

void splitString(string str,int pos)

{

char a;

if(pos<=str.length())

{

cout<<"String 1:";

for(int i=0;i<pos;i++)

{

cout<<str[i];

}

cout<<"\n";

cout<<"String 2:";

for(int i=pos;i<str.length();i++)

{

cout<<str[i];

}

cout<<"\n";

return;

}

cout<<"The position does not exist\n";

}

OUTPUT:

Enter two string to concatenate

hello

world

The concatenated string is

hello world

Enter string 1

ethan

Enter the substring to find in string 1

than

The substring is found at 2

Enter a string to split in to two

ethan menezes

Enter the position to split

6

String 1:ethan

String 2:menezes

Enter a string to upper case it

ethan

the updated string is : ETHAN

Enter a string to lower case it

MENEZES

the updated string is : menezes