



C++ for Engineers and Scientists | (4th Edition)



Problem

(Data processing) Modify the program written for Exercise to include an array of five names.

Exercise:

(Data processing) Write a C++ program that accepts a name as first name followed by last name, and then displays the name as last name, first name. For example, if the user enters Gary Bronson, the output should be Bronson, Gary.

Step-by-step solution

Step 1 of 3

Display last name and then first name

Program Plan:

- Include header files and declare required namespaces.
- Initialize the `main()` function.
- Declare string array to be used.
- Prompt the user to enter a names.
- Read the five input strings.
- Compute the result and display the output.

Comment

Step 2 of 3

Program:

```

//*****
// This program is modified to include array of names and
// display the names in such a manner that the last name
// appears before the first name.
//*****
```

```

// include header files and namespace used
#include <iostream>
#include <string>
using namespace std;
```

```

// main function
int main()
```

```

{
Declare two string type array strarray[] , which is used to store the user input string
while str[] is used to do the computation.
//array decleration
string strarray[5],str[5];
```

The variable numChars is used to store the length of the user input name string while i is used as the loopcounter.

```

//variable decleration
int numChars,i;
```

The variable pos is used to store the position of the blankspace.

```

//delare and initialise the variable
int pos=0;
```

The for () loop is implemented to perform computation in the string array. With each implementation of the for () loop the name in the array strarray[i] is taken and is inverted then diplays the last name before the first name.

```

for (i=0;i<5;i++)
{
cout << "Please enter the name " <<endl;
```

The getline () function is used to read the user input value.

```

//read user input
getline(cin, strarray[i]);
```

The length of the string str is calculated using the length () function and is stored in numChars.

```

//calculate string length
numChars= int(strarray[i].length());

if((strarray[i]).find(' '))
{
```

The position of the blankspace is stored in the pos variable with the help of string class function to find the position of the given value.

```

//find position of the blankspace
pos = (strarray[i]).find(' ');
}
```

The string value in strarray[i] after the blankspace is stored in another string str[i] and the unwanted string element after the blank space are removed from the strarray[i] string using the erase () function of string class.

```

//copy substring and erase the unwanted space
str[i]= (strarray[i]).substr(pos+1,numChars);
strarray[i].erase(pos);

//Display output.
cout << "The name after inversion is: " << str[i]
<< " " <<strarray[i]<<endl;
```

```

}
```

Comment

Step 3 of 3

Sample output:

```

Please enter the name
michel jackson
The name after inversion is: jackson michel
Please enter the name
tom cruise
The name after inversion is: cruise tom
Please enter the name
ricky perry
The name after inversion is: perry ricky
Please enter the name
tommy dic
The name after inversion is: dic tommy
Please enter the name
sim gibbs
The name after inversion is: gibbs sim
```

Comment

Was this solution helpful?

0

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Recommended solutions for you to review

Chapter 5.3, Problem 6E

(Conversion)a. Write a C++ program to convert meters to feet. The program should request the starting meter value, the number...

See solution

Chapter 12.2, Problem 5E

(Program) Write a C++ program that has a Date class and a Julian class. The Date class should be the same Date class used in...

See solution

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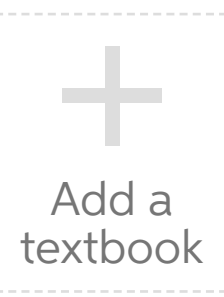
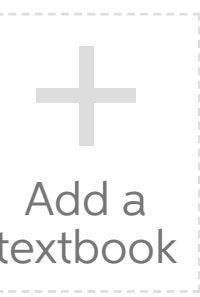
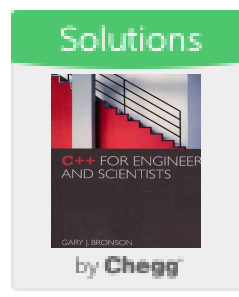
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