

Program 7: File Structures.

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Program:

```
#include <iostream>
#include <string.h>
#include <fstream>
#include <stdlib.h>
using namespace std;
fstream f1, f2, f3;
void createlists()
{
    int n, m;
    char name[20];
    f1.open("File1.txt", ios::out);
    f2.open("File2.txt", ios::out);
    if ((!f1) || (!f2))
    {
        cout << "Unable to open the files.";
        exit(0);
    }
    cout << "Enter the number of names in File 1: ";
    cin >> n;
    cout << "Enter the number of names in File 2: ";
    cin >> m;
    int i;
    cout << "Enter the names in File1: " << endl;
    for (i = 0; i < n; i++)
    {
        cin >> name;
        f1 << name;
        f1 << "\n";
    }
    cout << "Enter the names in File2:" << endl;
    for (i = 0; i < m; i++)
    {
        cin >> name;
        f2 << name;
        f2 << "\n";
    }
    f1.close();
    f2.close();
}
void coseqmatch()
```

```

{
    char list1[50][20], list2[60][20];
    f1.open("File1.txt", ios::in);
    f2.open("File2.txt", ios::in);
    f3.open("File3.txt", ios::out);
    if ((!f1) || (!f2) || (!f3))
    {
        cout << "Unable to create files";
        exit(0);
    }
    int n, m = 0;
    n = 0;
    cout << "Elements in list 1:\n"
        << endl;
    while (!f1.eof())
    {
        f1.getline(list1[n], 20);
        cout << list1[n] << "\n";
        n++;
    }
    cout << "Elements in list 2:\n"
        << endl;
    while (!f2.eof())
    {
        f2.getline(list2[m], 20);
        cout << list2[m] << "\n";
        m++;
    }
    int i, j, k;
    //implementing cosequential match
    i = j = 0;
    k = 0;
    cout << "Common names: \n"
        << endl;
    while (i < n - 1 || j < m - 1)
    {
        if (strcmp(list1[i], list2[j]) == 0)
        {
            f3 << list1[i] << "\n";
            cout << "File 3 has " << list1[i] << "\n";
            i++;
            j++;
            k++; //counter for the third file
        }
        else if (strcmp(list1[i], list2[j]) < 0)
            i++;
        else
            j++;
    }
}

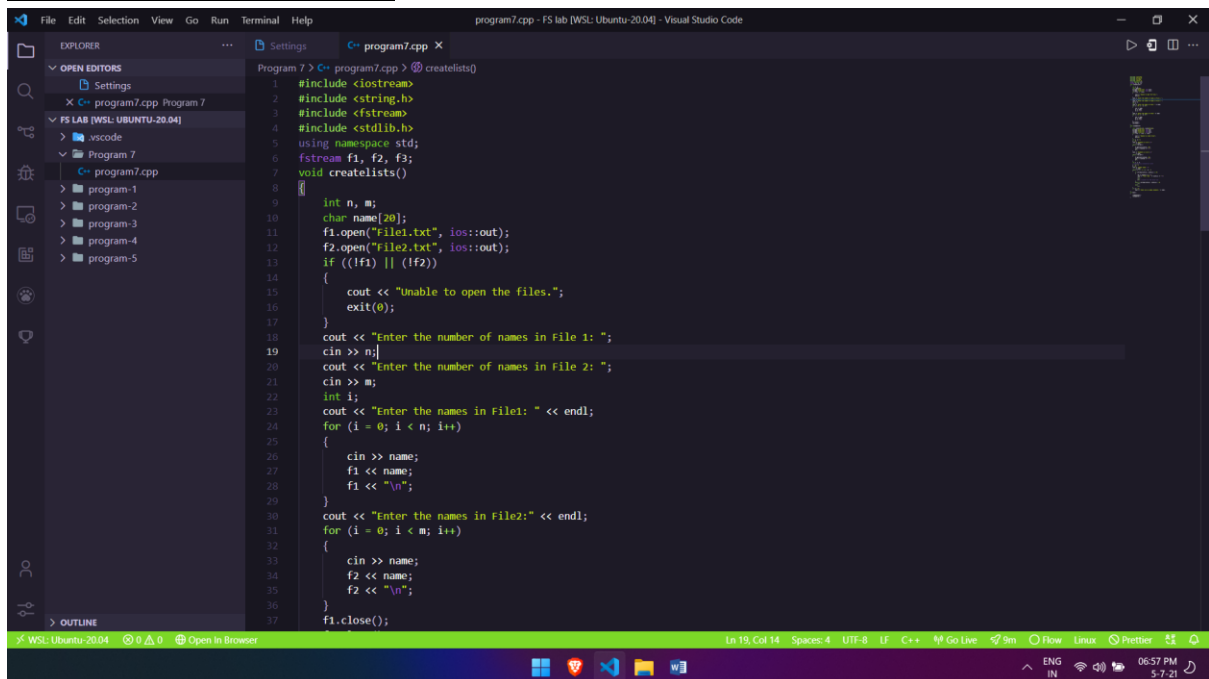
```

```

    }
    if (k == 0)
        cout << "There are no common elements." << endl;
}
int main()
{
    createlists();
    coseqmatch();
}

```

Program Screenshots:



```
37 f1.close();
38 f2.close();
39
40 void coseqmatch()
41 {
42     char list1[50][20], list2[60][20];
43     f1.open("File1.txt", ios::in);
44     f2.open("File2.txt", ios::in);
45     f3.open("File3.txt", ios::out);
46     if ((!f1) || (!f2) || (!f3))
47     {
48         cout << "Unable to create files";
49         exit(0);
50     }
51     int n, m = 0;
52     n = 0;
53     cout << "Elements in list 1:\n"
54         << endl;
55     while (!f1.eof())
56     {
57         f1.getline(list1[n], 20);
58         cout << list1[n] << "\n";
59         n++;
60     }
61     cout << "Elements in list 2:\n"
62         << endl;
63     while (!f2.eof())
64     {
65         f2.getline(list2[m], 20);
66         cout << list2[m] << "\n";
67         m++;
68     }
69     int i, j, k;
70     //Implementing cosequential match
71     i = j = 0;
72     k = 0;
73     cout << "Common names: \n"
```

```
62         << endl;
63     while (!f2.eof())
64     {
65         f2.getline(list2[m], 20);
66         cout << list2[m] << "\n";
67         m++;
68     }
69     int i, j, k;
70     //Implementing cosequential match
71     i = j = 0;
72     k = 0;
73     cout << "Common names: \n"
74         << endl;
75     while (i < n - 1 || j < m - 1)
76     {
77         if (strcmp(list1[i], list2[j]) == 0)
78         {
79             f3 << list1[i] << "\n";
80             cout << "File 3 has " << list1[i] << "\n";
81             i++;
82             j++;
83             k++; //counter for the third file
84         }
85         else if (strcmp(list1[i], list2[j]) < 0)
86             i++;
87         else
88             j++;
89     }
90     if (k == 0)
91         cout << "There are no common elements." << endl;
92 }
93 int main()
94 {
95     createlists();
96     coseqmatch();
97 }
```

Output Screenshots:

```
sooraj@Asus-F-15:~/FS lab/Program 7$ ./a.out
Enter the number of names in File 1: 3
Enter the number of names in File 2: 2
Enter the names in File1:
sooraj
singh
maniram
Enter the names in File2:
akshay
anirudh
Elements in list 1:

sooraj
singh
maniram

Elements in list 2:

akshay
anirudh

Common names:

There are no common elements.
```

```
sooraj@Asus-F-15:~/FS lab/Program 7$ ./a.out
Enter the number of names in File 1: 3
Enter the number of names in File 2: 2
Enter the names in File1:
sooraj
akshay
veena
Enter the names in File2:
maniram
veena
Elements in list 1:

sooraj
akshay
veena

Elements in list 2:

maniram
veena

Common names:

File 3 has veena
```