

```
Script started on 2024-05-05 15:25:22-05:00 [TERM="xterm" TTY="/dev/pts/0" COLUMNS:
ee43254@ares:~$ pwd
/home/students/ee43254
ee43254@ares:~$ cat namesearch.info
Name: Kyle Enkhzul
```

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Class: CSC122-W01
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Activity: Hide 'n' Go Seek
```

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Level: 3.5, 1.5 (base program), 1.5 (loop to search again), 0.5 (suffixes)
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Description:
```

```
This program allows the user to search through a list of names stored in a
file for a particular one given a list.
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```
ee43254@ares:~$ show-code namesearch.cpp
```

```
namesearch.cpp:
```

```
1 #include <iostream>
2 #include <fstream>
3 #include <string>
4 #include <vector>
5 #include <sstream>
6 #include "strextra.h"
7
8 using namespace std;
9
10 string getPositionSuffix(short position) {
11     if (position % 10 == 1 && position != 11)
12         return "st";
13     else if (position % 10 == 2 && position != 12)
14         return "nd";
15     else if (position % 10 == 3 && position != 13)
16         return "rd";
17     else
18         return "th";
19 }
20
21 void searchNameInFile(const string& filename, const string& name) {
22     ifstream file(filename);
```

```
23     string line;
24     short lineNumber = 0;
25     bool found = false;
26
27     if (file.is_open()) {
28         file >> std::ws;
29         while (getline(file, line)) {
30             lineNumber++;
31             line.erase(line.length()-1);
32
33             if (strcmp_ncase(name.c_str(), line.c_str()) == 0) {
34                 found = true;
35                 cout << "\n" << name << " is the " << lineNumber
36                     << getPositionSuffix(lineNumber) << " name
37                     << endl;
38                 break;
39             }
40         }
41         file.close();
42         file.clear();
43     } else {
44         cerr << "Unable to open file: " << filename << endl;
45     }
46
47     if (!found) {
48         cout << "Name '" << name << "' not found in the file." << endl;
49     }
50 }
51
52 bool fileExists(const string& filename) {
53     ifstream file(filename);
54     return file.good();
55 }
56
57 int main() {
58     ifstream data_file;
59     string fileName, name;
60     bool continueSearching = true;
61
62     // ask user for filename
63     cout << "\t\t\tWelcome to the Name Searching Program!!!!\n";
64     cout << "Please enter the name of your names file: ";
65     getline(cin, fileName);
66
67     data_file.open(fileName);
68     // validate file exists
69     while (!data_file) {
70         data_file.close();
71         data_file.clear();
72         cout << "I'm sorry, I could not open '" << fileName <<
73             "' Please enter another name: ";
74         getline(cin, fileName);
75         data_file.open(fileName);
76     }
```

```

77     while (continueSearching) {
78         cout << "\nEnter the name to search for: ";
79         getline(cin, name);
80
81         searchNameInFile(fileName, name);
82
83         char choice;
84         cout << "\nDo you want to search another name in the same file? (y/n)";
85         cin >> choice;
86         cin.ignore(); // to clear the input buffer
87         if (choice != 'y' && choice != 'Y') {
88             continueSearching = false;
89         }
90     }
91
92     cout << "\nThank you for using the NSP!!\n";
93     cout << "\nEndeavor to have an amazing day\n";
94
95     return 0;
96 }

```

```

ee43254@ares:~$ CPP namesearch
namesearch.cpp**

```

```

ee43254@ares:~$ cat names.dat
Jason James

```

Mary Jones

Tammy Henry

```

Bob Smith ee43254@ares:~$ ./namesearch.out
Welcome to the Name Searching Program!!!!
Please enter the name of your names file: bob.txt
I'm sorry, I could not open 'bob.txt' Please enter another name: names.dat

```

Enter the name to search for: Mary Jones

'Mary Jones' is the 2nd name in the file!

Do you want to search another name in the same file? (y/n): y

Enter the name to search for: tamMY hENRY

'tamMY hENRY' is the 3rd name in the file!

Do you want to search another name in the same file? (y/n): y

Enter the name to search for: jASON jaMES

'jASON jaMES' is the 1st name in the file!

Do you want to search another name in the same file? (y/n): y

Enter the name to search for: bob smith

'bob smith' is the 4th name in the file!

Do you want to search another name in the same file? (y/n): y

Enter the name to search for: square bob

Name 'square bob' not found in the file.

Do you want to search another name in the same file? (y/n): n

Thank you for using the NSP!!

```

Endeavor to have an amazing day
ee43254@ares:~$ cat namesearch.tpq

```

1. How do you handle not knowing how much data is in the file?

Since we do not know how much data is in the file, we must getline() to read the contents of the file.

2. What kind of loop do you use to process the file?

A while loop.

3. What do you do if the person isn't found in the file?

If the person isn't found in the file, I have a boolean set up to where it states that the user is not found.

4. Can there be more than one name on a single file line?

No, there can not be because each line is treated as its own string. If there is more than one name then it will be treated as one. ee43254@ares:~!

exit

Script done on 2024-05-05 15:27:02-05:00 [COMMAND_EXIT_CODE="0"]