

```
Script started on 2021-10-29 15:20:05-05:00 [TERM="xterm" TTY="/dev/pts/3" COLUMNS=
k_gandhi6@ares:~$ pwd
/home/students/k_gandhi6
k_gandhi6@ares:~$ cat names.info
Name: Kush Gandhi
```

Class: CSC122-001

Lab: Hide 'n' Go Seek

Levels: 3.5

0.5 = make name position look neat.

1 = to match not whole string but a substring.

0.5 = print all matches of a name.

1.5 = base level program

Description: Finds the position of a name in a file and outputs
the position number with the number as well.

```
k_gandhi6@ares:~$ cat nameSearch.cpp
#include <iostream>

#include <fstream>

#include <cmath>

#include <string>

using namespace std;

string suffix(const int & count);//makes the oput nicer by nd,st,rd
void strcmp_ncase(const string & name, const string & temp, bool & found);
bool nameSearch(const string & name, ifstream & input);

int main(void)
{
    string name, fileName, list;
    ifstream input;
```

```
    cout << "\t\tWelcome to the Name Searching Program!!!" << endl;
```

```
    cout << "\nPlease enter the name of your names file: ";
```

```
    getline(cin, fileName);
```

```
    input.open(fileName);
```

```
    while (!input)//loop check input file
```

```
    {
```

```
        input.close();
```

```
        input.clear();
```

```
        cout << "\nI'm sorry, I could not open '" << fileName
```

```
            << "'. Please enter another name: ";
```

```
        getline(cin, fileName);
```

```
        input.open(fileName);
```

```
    }
```

```
    cout << "\nFile '" << fileName << "' opened successfully!\n";
```

```
    cout << "\nWhat name would you like to find in this file? ";
```

```
    getline(cin, name);//get user input
```

```
    nameSearch(name, input);//call to function to search name
```

```
    input.close();
```

```
    input.clear();
```

```
    cout << "\nThank you for using the NSP!!"
```

```
        << "\nEndeavor to have an amazing day!" << endl;
```

```
}
```

```

string suffix(const int & count)
{
    string chr = "th";//set default

    if (count / 100 % 10 != 1)
    {
        switch (count % 10)//if different POS then print others
        {
            case 1:
                chr = "st";
                break;
            case 2:
                chr = "nd";
                break;
            case 3:
                chr = "rd";
                break;
        }
    }
    return chr;
}

void strcmp_ncase(const string & name, const string & temp, bool & found)
{//function for match string and partially of it

    size_t i = 0;

    while (i < name.length() && tolower(name[i]) == tolower(temp[i]))

```

```

    {
        i++;
    }

    found = i >= name.length();
}

bool nameSearch(const string & name, ifstream & input)
{
    string temp;
    bool finallyFound = false, found = false;
    int count = 0;

    input.peek();

    while (!input.eof())//search through file
    {
        count++;//line increment
        getline(input, temp);
        strcmp_ncase(name, temp, finallyFound);//call to function
        if (finallyFound)//for valid names
        {
            cout << "\n'" << name << "' is the " << count << suffix(count) <<
                " name in the file!" << endl;
            found = true;
        }
        input.peek();
    }
}

```

```
    if (!found)//for invalid names
    {
        cout << "\nInvalid Name!" << endl;
    }

    return found;
}

k_gandhi6@ares:~$ cat names.txt
Jason James

Mary Jones

Tammy Henry

Bob Smith

Kush Gandhi

Kush Patel

Sam Jones

David Goggins

Darren Hardy

Phil Knight

Ramit Sethi

k_gandhi6@ares:~$ CPP nameSearch
nameSearch.cpp***

k_gandhi6@ares:~$ ./nameSearch.out
Welcome to the Name Searching Program!!!

Please enter the name of your names file: naksfd.dat

I'm sorry, I could not open 'naksfd.dat'. Please enter another name: names.txt

File 'names.txt' opened successfully!

What name would you like to find in this file? kush GandHi

'kush GandHi' is the 5th name in the file!
```

```
Thank you for using the NSP!!
Endeavor to have an amazing day!
k_gandhi6@ares:~$ ./nameSearch.out
Welcome to the Name Searching Program!!!

Please enter the name of your names file: names.txt

File 'names.txt' opened successfully!

What name would you like to find in this file? KUSH

'KUSH' is the 5th name in the file!

'KUSH' is the 6th name in the file!

Thank you for using the NSP!!
Endeavor to have an amazing day!
k_gandhi6@ares:~$ ./nameSearch.out
Welcome to the Name Searching Program!!!

Please enter the name of your names file: names.txt

File 'names.txt' opened successfully!

What name would you like to find in this file? JAS

'JAS' is the 1st name in the file!

Thank you for using the NSP!!
Endeavor to have an amazing day!
k_gandhi6@ares:~$ ./nameSearch.out
Welcome to the Name Searching Program!!!

Please enter the name of your names file: names.txt

File 'names.txt' opened successfully!

What name would you like to find in this file? JaSoN JaMeS

'JaSoN JaMeS' is the 1st name in the file!

Thank you for using the NSP!!
Endeavor to have an amazing day!
k_gandhi6@ares:~$ ./nameSearch.out
Welcome to the Name Searching Program!!!

Please enter the name of your names file: names.txt

File 'names.txt' opened successfully!

What name would you like to find in this file? bob RoMan

Invalid Name!
```

```
Thank you for using the NSP!!  
Endeavor to have an amazing day!  
k_gandhi6@ares:~$ cat names.tpq  
1. How do you handle not knowing how much data is in the file?
```

```
- You could have as many names in your file. So, there is no limit  
to it. The program will find the name eventually.
```

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

```
- My loop is in the bool function nameSearch with a while loop to  
iterate through the files of names.
```

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

```
- If the person is not found in the file, then we prompt the user invalid  
statement name given. After that we can loop back again for a new name from  
the user.
```

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

```
(Will your program handle it?)
```

```
- The program I designed will not be able to handle more than 1 name  
on a given line because I am using getline to read the user response.
```

```
k_gandhi6@ares:~$ exit  
exit
```

```
Script done on 2021-10-29 15:27:54-05:00 [COMMAND_EXIT_CODE="0"]
```