

Objectives:

Use files, searching, and reference parameters.

A police department has a file of integers that represent driver license numbers for speeding violators. The department would like to know how many violations a particular license has. Write a program that finds the number violations by counting the number of times a driver license number occurs in the data file. The program should read the data file name and the driver license and determine the number of violations. Display an error message if the driver license is invalid (i.e. negative) or the file does not exist.

The number of violations is equivalent to the number of occurrences that particular license appears in the file. If the license has more than 6 violations, print a message indicating that the license should be suspended.

Your program must include the following two functions:

- A function that takes an input stream, a license number, and returns the number of violations. It should return 0 if the license is not found.
- A function that prints the results.
 - License number and the number of violations
 - Whether the license needs to be suspended or not

Sample interaction:

```
./a.out
Enter the data file name: violations.txt
Enter a license number: 999

Driver license 999 has 0 violations.

./a.out
Enter the data file name: violations.txt
Enter a license number: 22222

Driver license 22222 has 9 violations.
Driver license 22222 should be suspended

./a.out
Enter the data file name: violations123.txt
Error: File name violations123.txt does not exist

./a.out
Enter the data file name: violations.txt
Enter a license number: -999
Error: invalid license number
```

Grading:

Programs that contain syntax errors will earn zero points.

Programs that do not include the above functions will also earn zero points.

Programs that use any library that was not discussed in class will earn zero points.

Your grade will be determined using the following criteria:

- Correctness (20 points)
 - 10 points for each of the required functions listed above.
- (5 points) Clarity and format of the output including good error messages
- (5 points) Style & Documentation

Follow the coding style outline on GitHub:

<https://github.com/nasseef/cs2400/blob/master/docs/coding-style.md>