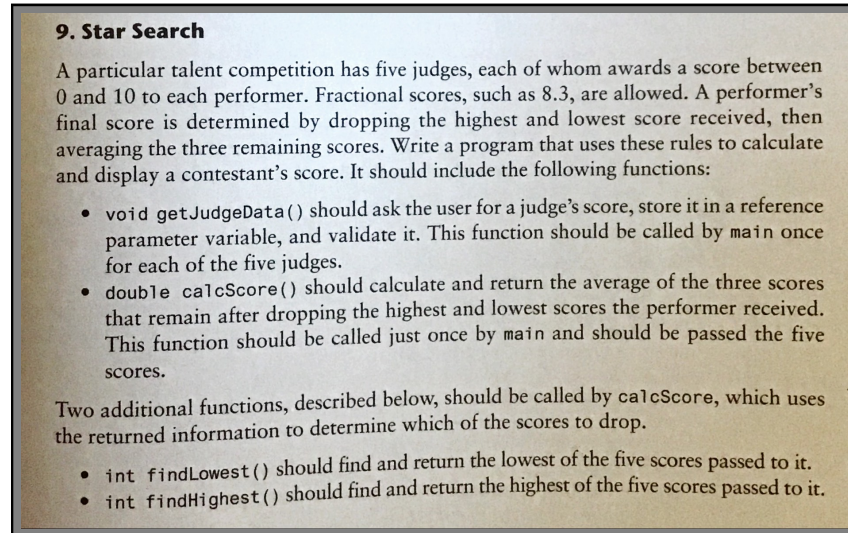


Extra Credit Assignment 5 (Ex5)

Professor Caleb Fowler

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Problem.



9. Star Search

A particular talent competition has five judges, each of whom awards a score between 0 and 10 to each performer. Fractional scores, such as 8.3, are allowed. A performer's final score is determined by dropping the highest and lowest score received, then averaging the three remaining scores. Write a program that uses these rules to calculate and display a contestant's score. It should include the following functions:

- `void getJudgeData()` should ask the user for a judge's score, store it in a reference parameter variable, and validate it. This function should be called by `main` once for each of the five judges.
- `double calcScore()` should calculate and return the average of the three scores that remain after dropping the highest and lowest scores the performer received. This function should be called just once by `main` and should be passed the five scores.

Two additional functions, described below, should be called by `calcScore`, which uses the returned information to determine which of the scores to drop.

- `int findLowest()` should find and return the lowest of the five scores passed to it.
- `int findHighest()` should find and return the highest of the five scores passed to it.

Figure 1: p.401, Programming Challenge #9

- You goal is to get the same output I have, given the same inputs. You do not have to have the same titles, etc, I have however. I'm interested in you transforming the same data and arriving at the same output.
- Do not get creative and add features - save that for your homework. These are supposed to be short and quick assignments.
- Use a source file header just like your homework assignments.
- The purpose of these assignments is to reinforce concepts from the material we are currently studying. That's why they are only worth 50% when they are late - they don't apply to the material we are studying anymore.

Output.

Due Date and Turn In.

I ONLY accept homework through the Canvas Dropbox. Do not add it to the submission comments or email it to me - I will not accept it. Turn homework in by uploading to the appropriate Canvas Dropbox folder. Save your homework as a .cpp file. Don't zip or otherwise compress your files. Do NOT split your file up into multiple files. I know that is a standard industry practice, but it just get's in the way for this class.

```
Star Search
=====

Enter judge 1  score: 0
Enter a number between 1 and 10
11
Enter a number between 1 and 10
2
Enter judge 2  score: 1
Enter judge 3  score: 2
Enter judge 4  score: 2
Enter judge 5  score: 10
2
1
2
2
10
Average score is 2
2
0
2
2
0
_
```

Figure 2: Aim to produce something similar to this.

Create a file with the following naming format: W12345678.cpp (your w number). This allows me to sort the class in alphabetical order - don't stand out here! If you are having trouble submitting the assignment, email me immediately. Don't change your filename if you make multiple submissions - Canvas will keep track of them and download the latest one by default.

This assignment is due **MONDAY at 11:59 PM**. If you exceed that date and time, your work is late. Build 5 - 10 minutes into your estimates to upload the file! ¹ Canvas records the date and time the upload COMPLETES. Late work is still acceptable, but it is worth half as much. That is, there is a 50% penalty for late work. You may turn late work in up until the following Sunday at 11:59 PM OF THE WEEK THE ASSIGNMENT IS DUE. Once Canvas closes I will not accept an assignment.

¹ Pro-Tip: Get a bare bones copy of your code running and turn it in. Then go ahead and modify it with more specifications and whatnot. Upload it with the same name when you finish. That way, if something unexpected happens, you have some working code turned in. Canvas downloads the latest version to me by default. Risk management, class, risk management.