

Coursera

Catalog

Search catalog

Q

For Enterprise

Java

Back to Week 3

Lessons

Prev

Next

Which Countries Export...?

Weather CSV Problem

Hottest Day in a Year: Comma Separated Values

2 min

Converting Strings to Numbers

4 min

Maximum Temperature: Developing an Algorithm

5 min

Java for Nothing—null: When You Don't Have an Object

4 min

Maximum Temperature: Translating into Code

4 min

Maximum Temperature: Testing Code

3 min

Maximum Temperature from Multiple Datasets

5 min

Maximum Temperature Refactored

4 min

CSVMax: Summary

41 sec

Programming Exercise: Parsing Weather Data

10 min

Practice Quiz: Weather Data

9 questions

Maximum Temperature Refactored

Maximum Temperature Refactored

Have a question? Discuss this lecture in the week forums.

Interactive Transcript

Search Transcript

English

0:03

Technically my code is done. But I feel a little uncomfortable about the amount of duplicated code that occurred in both of the methods that I wrote. And I know that it was duplicated because I copied and pasted between the two methods. And in programming that's not a good way to create your programs because if you have a problem in that piece of code it now appears multiple times. And you have to try to fix it in all those different places. So what I'd like to do is I'd like to factor out that common code and [put it in its own method, which here I've named getLargestOfTwo, so](#) that I can reuse that code in all of my other methods. So the part that I copied and pasted was this if else statement that appears both in the hottest of many days and in, The hottest hour in a file. So I'm gonna go ahead and cut that code from that method, and put it into getLargestOfTwo, including, at the end, returning the LargestSoFar so that I have the right result. And I don't have to make any changes to the code because, in my particular case, I had everything named the same. So, both of them call the current one currentRow and the largest one largestSoFar. And largestSoFar should remain the same unless it's null or unless currentTemp is greater. So in those two cases I should update largestSoFar, but otherwise largestSoFar is the correct value. So that's what my method is going to look like. It's just gonna be those two.

1:55

The if and the else statement and a return of its own. And now I can use that here to say, largestSoFar gets getLargestofTwo and I'll pass it the current row and largestSoFar. That will do the work of my if else statement. Store the result there, and likewise I can now copy and paste this one line of code into hottest of many files, and replace again that same if else with,

2:41

That one line, sorry I lost my place there for a moment, so I get the current row from the file and I get the largest of the two. And now let's go ahead and compile and make sure that I didn't misspell something by not capitalizing it.

2:58

And then since I copied and pasted that, I have to fix it twice, which is exactly what I was warning you about earlier.

3:04

And so now hopefully, since I fixed both of those, it will compile. And now we have to go back and test it, just to make sure that everything is correct. So I'm gonna create a new CSV max, cuz even though I moved code around and it shouldn't have changed the functionality, I wanna actually make sure that that's true. So I'm gonna test the hottest of the day and sure enough it gives 54 for January 2nd of 2015 and I'm gonna call get hottest in many days. And I'm gonna go back and select those two days that we've been using for our test, and sure enough, it still thinks it was 54 degrees.

3:44

So with those tests, I feel good that the changes that I made in terms of moving code around didn't affect the functionality. But now I feel more confidence in my code because this large piece of code that was duplicated, now I've taken care of it. It only appears in one place, so if I ever find a problem with that, I can go back and fix it just in that one place.

Downloads

Lecture Video

mp4

Subtitles (English)

WebVTT

Transcript (English)

txt

Would you like to [help us translate](#) the transcript and subtitles into additional languages?