

CSE143X Lecture Questions for Monday, 10/12/20

Time (e.g., 12:45)	Question	Answer
16:20	Is there a way to specify the delimiter between Scanner tokens such as a comma for reading CSV files?	Yes. The Scanner class includes a method called useDelimiter, as in: input.useDelimiter(","); That would be for tab delimited files.
44:00	<p>For assertions, if it is impossible to enter an if statement but, if execution were to enter, a condition would be true, is that an “always” or “never” situation?</p> <pre>int x = 0; if (x == 5) { // is x always 5 or never 5 }</pre>	I wouldn't ask a question where code is unreachable.
49:20	<pre>public class Main { public static void main(String[] args) { mystery(0, 0); } public static void mystery(int x, int y) { int z = 0; while (x >= y) { x = x - y; z++; if (z == 0) { System.out.println("z == 0"); } } } }</pre> <p>// “z == 0” is printed every ~5 seconds due to integer overflow, not “never.” Should we consider overflow when answering questions?</p>	I don't consider issues like integer overflow for assertions questions and neither should you. :-)
23:13	Does Java store files as an array of characters?	Arrays are programming language constructs. Files are stored as sequences of bytes (8-bits of memory). jGRASP is displaying that sequence of bytes when you use the viewer.

23:50	When we say double d = input.nextDouble() when the cursor points to an integer, it will get stored right?	Yes. An int value in the input file can be interpreted as a double (it will be converted).
26	The hasNext and hasNextLine method do the same thing?	No. There might be an empty line that has no tokens on it, in which case hasNextLine() would return true while hasNext() would return false.
29:59	Is report exceptions common in java? How can we know where to have a catch and try? How can we know where to add throw some exceptions? Ok. Thank you.	I don't teach about try/catch. It's not a simple subject to cover. Error recovery is hard. The Java compiler will tell you when you are dealing with a checked exception where you need try/catch or a "throws" clause.
31	Why is the f.exists() method not acceptable as a solution to the FileNotFoundException?	As I mentioned, it's not clear that checked exceptions are a good idea. The designers of C# did not include them. I think it's enough to have methods like f.exists(), but that's not what the designers of Java did. I think they made a mistake, but that's just my opinion.
38:44	If we don't create a new Scanner object tied to the line for line based processing, it will read from the entire file each time right?	When you construct a Scanner using a File object as I did originally, it's reading from the entire file. So I think the answer is yes to what you're asking. The other approach works because we tie it to a String that has just one line of input.
43:57	Can you explain again why after the if else loop, n is sometimes greater than or equal to zero? Re: Oh so are we just saying sometimes just to be safe since n could be anything after the if? Re2: got it! Thanks!	There is nothing about an if/else that would lead you to be able to draw conclusions about what is true after the if/else. I give an example where that isn't so, but only because of the code inside the if. Typically you would have no guarantees about the value of n after an if/else. It's not a loop. I was trying to give general advice. It will vary depending on the specific case, but in general you won't be able to draw conclusions about what is true after an if/else.