

CSE142 Lecture Questions for Friday, 1/6/21, section A

Time (e.g., 12:45)	Question	Answer
	When is the next homework assignment?	It will be handed out next Wednesday.
	What should we do to get ahead in the class if we have already finished the first homework assignment?	After today's lecture, practice with expression problems on PracticeIt.
	My method names are long and descriptive. For example: <code>birdGoesToSleep()</code> This is just a hypothetical example, but is it ok to make method names this long?	Long method names are fine. That's the norm in Java programs.
	Is it bad style to have a method name that's the same name as the class?	Not necessarily if the name is appropriate.
	For homework 1, do you want us to do those single line of redundancy too? For example: <code>she swallowed a bird to catch the spider.</code>	A single line is not redundancy. I've asked you to do two things. Don't have 2 or more lines of redundancy and don't have the same non-blank <code>println</code> more than once.
	I here about practiceIt a lot , is that a resource we should we using? What exactly is it and where can we find it on the course page?	It is a very useful system. For example, after today's lecture, you could ask it to show you expression problems to practice to make sure you understand Java's rules of precedence and how <code>int/double</code> computations work.
	Should we use comments to explain the methods in our homework 1?	You aren't required to have comments on methods for homework 1, but you can if you want to practice. We'll require method comments starting with homework 2.
	Does it matter what we name the file for homework #1?	The spec says to call it <code>Song</code> .
	If we are stuck for homework, is it okay to find videos that explain how to get rid of redundancy or will that be considered academic misconduct?	I don't know how you'd find videos that talk about how to eliminate redundancy other than the one I posted for the calendar for Wednesday.

	<p>How many notes should we take during the recorded lectures?</p>	<p>I don't think it's helpful to take notes during the lecture except for really important things like style issues that I discuss. The lecture slides provide a review of the lecture.</p>
	<p>How can I access practice it? Do I just search it on the web? Also I did that and I can't login, i use my same canvas and uw login but it doesnt work</p>	<p>There is a tab on the class web page. You need to set up an account on PracticeIt.</p>
	<p>For homework 1 can we have more than one blank println statement in the main method separating each method call?</p> <p>Will it not be seen as redundancy? Okay thank you.</p>	<p>You can have blank lines in your code if you want. I'm not sure what else you might be referring to. As I said, I don't know what you're referring to. Blank lines are just that...blank lines. They aren't code.</p>
	<p>The goal of this homework assignment is to produce a song using only one println statement for each unique line of the song. It says in one of the powerpoint slides that a static method should not be created to print just one statement of println; However this is unavoidable for this homework assignment. I remember from Wednesday's lecture that we created a method called "line", even though it only had one println statement in it. I am confused about this. Can you please clarify, and this specification is not mentioned in the specifications as well.</p>	<p>You are required to have just one println statement for each non-blank println in your program. That might lead to a 1-line method.</p>
	<p>I have a similar question to the one asked above. For example, 'she wallowed a bird to catch the spider,' is a single println statement, but it does appear many times in the song. We do have to make a method that gets rid of this kind of redundancy, as it appears more than once, correct?</p>	<p>It's up to you to figure out how to structure your program. The println should occur only once. That doesn't necessarily mean that it's in a method by itself.</p>

	When will the slides be available for today's? Thank you professor!	In about an hour.
	During the quiz section yesterday, the TA showed us a pdf called "cheat sheet" or something. How can I access this document? I can't find it.	It's under the "Sections" tab of the class web page. https://courses.cs.washington.edu/courses/cse142/21wi/sections.shtml
	Is it considered redundancy to have multiple methods that perform essentially the same task? They have different method calls and different println statements but they are the exact same structure repeated multiple times.	Redundancy is defined as two or more lines of code in a row that are exactly the same in at least two different places in your code. You're talking about something very different.
	Would I be marked off points for redundancy if words are repeated? Ex: Catcat Thank you.	We have asked you to deal with entire lines of output that are repeated, not individual words.
	For the scientific notation, is that why when we create song.java, there's also a song.class with many 0's, it represents how numbers look that way? Okay, cool, thanks!	The Song.class file that is created is a low-level version of the Java code in Song.java. It doesn't have to do with the scientific notation.
	Will we be marked off points on our homework if our method names aren't descriptive enough? Such as bird() or spider()	That isn't yet listed under "general style deductions", but it's good to practice it.
27:19	General Kenobi	I didn't pick that on purpose. :-)
18:46	Other than doubles and ints, will there also be numbers with many decimal places? (ex: 3.14... 0.999999) will we learn about those too? Oh! Wow, that's impressive, thank you.	The type double is used for all of those numbers that have something after the decimal point.

18:20	What if we wanted to store Integer and double, do use int or double?	Any given value will be of one type or the other. You should think about the underlying data and whether it makes sense for it to be integer or a real number.
	Is a decimal point the only indication that a number is a double and not integer?	There is also a scientific notation form for double, although the details are a bit obscure. They're in the chapter if you're interested.
	When you do "hello" + 38, does the integer get promoted to a string?	It is converted to a string.
	Understanding that 3.5 and 2.5 are doubles and will result in 6.0, is there any possible that it become int constant?	No. It's stored differently on the computer, so it will stay as a double.
	If you did 20.0 / 3 instead of 20.0 / 3.0, would you still get the same answer	I give an example later, but this is a combination of an int and a double and in that case it behaves as if they were both doubles.
33:44	If you declare a string as y and an int as y (or even a double as y, as well) is that fine? Like, can you have different types of things all labeled the same? Good to know! I thought so.	No. Any given variable can have only one type.
33:44	Now, how about if you had a method called donut and then an int called donut - that doesn't work either, right? Okay! Thank you :)	That works. Java can tell the difference between a method and a variable.
	In concatenation did java turn the int into a string?	Yes.
	Will slides be posted later today?	Yes.
28:18	Within the programs and classes in UW, is JAVA the only language that is taught? Or are there classes where Python is taught too?	Some of our classes are taught in Python.

	Why do we use interactions	To be able to quickly see how Java evaluates an expression without having to write a complete program to do so.
	Why do we need to create java universe	I don't know what you mean by a Java universe.
	Can java deal with exponents?	Yes. The syntax is explained in the chapter. For example 3.5e19 represents $3.5 * 10^{19}$
	Any casing restrictions/requirements for variables?	The usual convention is the same one we use for methods...should begin with a lowercase letter and use camel casing for multiple words. But it's a convention, not a requirement.
	Could you do <code>x+1;</code> instead of <code>x=x+1;</code> ?	No. If you say: <code>x + 1</code> That's just an expression. There is no command there.
51:11	Why is it <code>4hello26</code> instead of <code>4hello8</code> ? Shouldn't the 6 and the 2 be added together?	No. We reached a point where we had only addition operators. They are evaluated left-to-right. So we end up adding "4hello" and 2 before we get to adding in the 6. You could use parentheses to force the 2+6 to be done before concatenation.
	What is precedence	Precedence is the set of rules that determine the order in which you evaluate the various operators of an expression. For example, with <code>2 + 3 * 4</code> do you add first or multiply first? Precedence rules make that clear (you multiply first).
	How does java decides as to which order in which it is going to do different operations?	There are rules for this. For example, multiplicative operators are evaluated before additive operators.
	In the example since x is an Int type, you can't add like 3.5 to x right? The call out for the variable would have to be for double?	You can form an expression <code>x + 3.5</code> , but the result is a double, so there are limits on where you can store it. You couldn't store the results in an int variable like x.

	Can you do incrementing with any operator?	Any variable can be incremented. If you're asking about operators like: <code>x += 3;</code> There are operators like that for all numeric operators (<code>-=</code> , <code>*=</code> , <code>/=</code> , <code>%=</code>).
	Does concatenation work with doubles as well? I.e. <code>"hello" + 3.4</code> (would the above expression return <code>"hello3.4"</code> ?)	Yes. You can always concatenate values to strings. Yes, <code>"hello" + 3.4 => "hello3.4"</code>
	I'm confused about how to access discussion sections. When I went to access the sections link on the web page the screen was blank and I wasn't able to access the material.	If you go to the sections tab now, you should see the resources for yesterday's section (a cheat sheet, various links to PracticeIt problems, and a key). You should go to the zoom links tab to find the link to your section.
	What's an example of "real-life" application of incrementing/decrementing?	One of the most common things we do in programming is to loop several times, performing a similar operation. We'll study that on Monday. As we do that, we tend to increment a variable to keep track of how many times we have gone through the loop.
	Do you need to cast both variables in your example about the CS grade? Thanks!	No. Once you cast one of them to double, you have a double/int combination and Java will do the calculation in doubles.
	If double is much more superior in numbers and usage, when and why would we use the integer? Thank you, makes much more sense.	The type double is not superior. It's different. Integers are stored exactly and often we want that. We also want to use int versus double to reflect the underlying data. I wouldn't want to use a double variable to store the number of brothers and sisters you have because you can't have 2.85 of them.
	Is <code>System.out.println("overall=" + overall);</code> an example of concatenation?	Yes. Good point. I should have mentioned that.
	How do you change the font on jgrasp, it randomly changes when I tab in and out of it.	Under Settings there is a Font option.
	Can you re-submit hw as long as it is before the deadline?	Yes. We grade the last submission you make.

	<p>Is it more organized to use the += forms or writing the full equation more organized? Thank you</p>	<p>Whether or not to use those special forms is really a personal choice. Experienced programmers tend to use them, but there is no particular reason to learn this early.</p>
	<p>What is mod operator.</p>	<p>It returns what is left over from a division calculation. For example, suppose you asked for $37 / 5$. How many times does 5 go evenly into 37? The answer is 7. And $7 * 5$ is 35. So what is left over? 2. So $37 \% 5$ will give you 2. The textbook has a more detailed explanation.</p>
	<p>Is an integer plus or minus a double also a double?</p>	<p>Yes. When you have an int/double combination, Java converts the int into a double, so the overall results is of type double.</p>
	<p>What will be the answer if we do $20.0/10.0$</p>	<p>2.0. You can type things like this into the interactions pane in jGRASP to explore.</p>
47:29	<p>Can we convert the variable overall to an int data type? Got it. Thank you professor</p>	<p>We could, but we would want to see the full value including what comes after the decimal point.</p>
	<p>What is inundation</p>	<p>Indentation refers to using the tab key to align text in your program file. I talked about this in the last lecture.</p>
51	<p>Why does java do the numerical operations before the concatenation? Should the program run left to right? Do numerical operations take precedence over concatenation?</p>	<p>It goes left to right. But the multiplication has higher precedence than the addition, so it does that before any concatenation. Then it goes left to right.</p>
	<p>Can we solve equation like $x+y=12$ $x-2y=8$ For solving equation do we need to define variables like you did in lecture</p>	<p>You are thinking of something completely different. You're talking about mathematical equations. The assignment statements we are writing aren't equations. They are a command to assign a value to a variable at a particular point in time.</p>
	<p>In the last example the one with $2 + 2 + \text{"hello"} + 2 + 2*3$, why is the answer 4hello26 instead of 4hello8 or 22hello26, I don't understand why one side is added then concated and the other is just concated individually into the string Thank you!</p>	<p>It's because the expression is evaluated left to right. So it encounters $2+2$ before it does any concatenating. That leads to "4hello". But then it evaluates "4hello" + 2, which leads to another concatenation for "4hello2". Then it sees the +6 and completes it. It has to do with the order from left to right. Java follows very simple rules.</p>

	Can you explain increment and decrement. I am completely lost	With integer variables we often want to count up or count down. Incrementing refers to increasing a variable's value by one. It's like counting. Decrementing involves reducing a variables value by 1.
	I dont understand how "4hello2"+6 turns into 4hello8 should it be 4hello26 because the 6 concatinates with the string? OH SORRY	It doesn't become 4hello8. It evaluates to 4hello26.
	In total there are how many homoeworks in total	8