

1.00 Lecture 22

Design Lab II

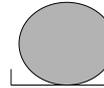
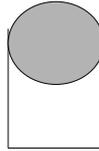
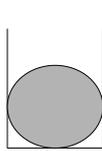
Reading for next time: Big Java 11.1, 19.1-19.2

Design Lab

- **Focus is on design and building of GUI**
- **No solutions will be given in class**
 - An example solution will be posted at 7pm tonight on the Web site
- **Ask a lot of questions as you work through the lab**
 - We encourage you to work with someone else
- **You do not have to finish the entire program**
 - The emphasis is on the design choices and learning to use Swing, not on the math.

Exercise

- **Build an application to simulate the position of a ball in a box**
- **The GUI should allow the user to specify the height and width of the box. Use JTextFields.**
 - The diameter of the ball is equal to the width of the box
 - Assume the user enters reasonable values
- **The application should draw a visualization of the ball and box whenever the user changes one of these values**
- **If you use model-view-controller, the model is very simple.**
 - You don't have to use a model; you can have the view do any calculations required. This program is just drawing, really computing.
- **Note the ambiguity in the problem, typical of real problems...**
 - **Optional: Start the ball at the top of the box and use a timer to let it settle to the bottom.** (The compiler will ask you to make the Timer final, which is ok. See a TA if you're doing this.)



You don't
have to
handle this
one

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1.00 / 1.001 / 1.002 Introduction to Computers and Engineering Problem Solving
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