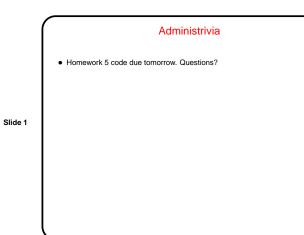
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Slide 3



Minute Essay From Last Lecture

 The game framework will allow you to add panels to any or all four sides of your game. You can display info (text is easiest) or include GUI components for additional user input (e.g., click a button to speed up the player). You can also add to the menu bar. How might this be helpful for your game? (Almost everyone had some good ideas!)

Slide 2

GUIs in Java — Recap of Main Ideas

· Components and containers.

minimum sizes.

- Layout grouping components in containers, layout managers. Components have minimum and preferred sizes; layout managers readjust sizes differently.
- Event handling listener interfaces, "add listener" methods.
- Painting predefined components do for you, or you can roll your own using graphics classes.
- Threads more later, but be aware this is an issue.

• A common structure for the main class of a simple program is to extend JFrame, put all/most setup code in constructor, have main method just create an instance and call setVisible. Call pack to set everything to

GUI-Based Programs in Java

- Slide 4 Usually need instance variables to represent persistent data anything needed by more than one method (including ones to handle events). This include components needed by more than one method.
 - If data becomes complex, considering making a separate class for it "Model / View / Controller" paradigm.
 - There are some compiler pitfalls with variables used in anonymous inner classes if local, may have to declare final.

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GUIs and the Project

- Overall layout of game is BorderLayout, with screen in middle and "game status panels" on four sides - returned by getGameStatusPanel (in player), usually a JPanel.
- Menu bar is in GameSetup, can be modified.
- Screen editor program has support for "editing properties" (of screens, blocks, entities) — getEditPropertiesPanel. Could use this to give slightly different properties to different instances (e.g., walls of different colors, enemies with different speeds).
 - Homework 6 will ask you to use these features to (1) display something, and (2) get input from the user (either in the game or in the screen editor).

Minute Essay

• Try writing code for a program that works as follows: Displays a text field the user can type into, an area to display the text, and a "convert" button.

When the button is pressed, converts the text in the text field to uppercase and displays it.

Slide 6

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Slide 5