

Slide 1

Administrivia

- Reminder: Homework 5 design due today, code next Tuesday.

Slide 2

GUIs in Java — Recap of Main Ideas

- Components and containers.
- 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.

GUI-Based Programs in Java

Slide 3

- A common way to structure simple programs: Put most/all setup code in constructor, have `main` method just create an instance and call `setVisible`. Sun's tutorial shows another approach, said to be more thread-safe. Main class can extend `JFrame` or have a `JFrame` variable.
- 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`.
- Let's do another example ...

Minute Essay

Slide 4

- None — quiz.