



## JavaFX 3

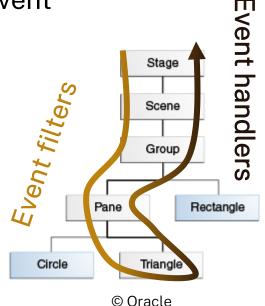
More on Events More on GUI Design

Structured Programming 1110/6710

## Event processing order

- 1. JavaFX determines the "target" of the Event
  - Mouse-click: what's at the mouse position?
  - Key press: which element has focus
- 2. Find path from stage to target
- 3. "Capturing Phase"
  - Execute event *filters* along path from stage to target
- 4. "Bubbling Phase"
  - Execute event *handlers* along path from stage to target

Any event handler/filter can consume the event, aborting the process



## **GUI Design Principles**

- Separate data and domain logic from presentation
  - Multiple ways to view the same data, multiple ways to execute same action
  - Separate responsibilities
  - Make it easier/possible to test domain logic
  - See also D2B vs String representation
- Assignment 2:

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- Separate internal model from GUI, but keep them in sync
  - » GUI action -> change internal data -> reload GUI data from internal data
- Do not let GUI considerations affect your model
  - » e.g. position of a dragged tile is a GUI-only concern