

JavaFX 1

X1

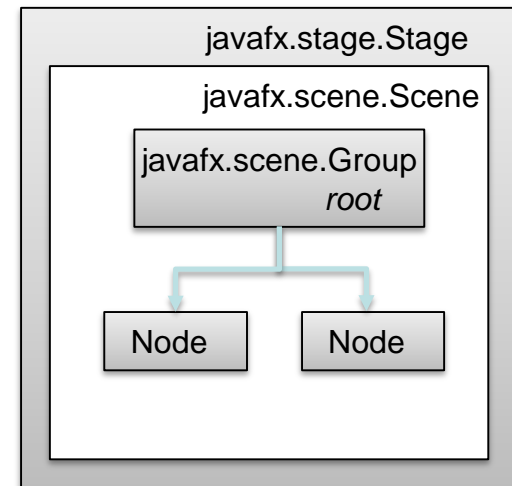
Introduction to JavaFX

JavaFX

- Designed for rich client applications
 - Graphics, UI's, video, audio, etc.
- Java APIs
 - *Not* to be confused with JavaFX 1.x, which is a scripting language, not a Java API
 - Java 8-10, integrated with JDK
 - Java 11-13, JavaFX is separate, and must be separately installed
- Replaces Swing
- JavaFX HelloWorld

JavaFX

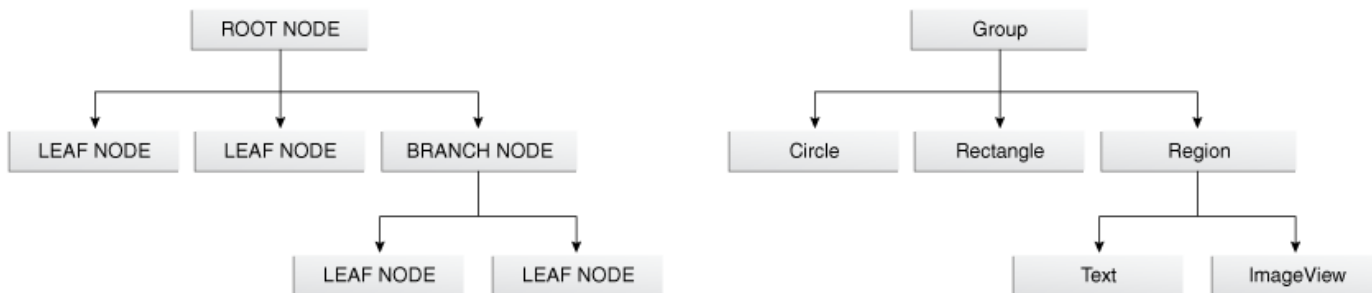
- **Extend** `javafx.application.Application`
 - Override the `start()` method
- Stage: the window
- Scene: container for a scene graph
- Node: object or group of objects in scene
- Pane: organizer of nodes in scene graph:
`FlowPane`, `TilePane`, `GridPane`, `HBox`, `VBox`, **etc.**



Java FX Scene Graph

Tree of nodes, with a single 'branch' at the root

- branch (may have children e.g. Group, Region)
- leaf (may not have children e.g. Rectangle, Circle)



Copyright Oracle (<http://docs.oracle.com/javafx/2/scenegraph/jfxpub-scenegraph.htm>)

Nodes and Properties

Can set node properties programmatically:

```
Text message = new Text("Hello");  
message.setFont(Font.font("Tahoma",  
    FontWeight.NORMAL, 40));  
message.setFill(Color.RED);
```

or declaratively using FXML / CSS:

```
#text {  
    -fx-font-family: Tahoma, sans-serif;  
    -fx-font-style: normal;  
    -fx-font-size: 40;  
    -fx-fill: red;  
}
```