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, JavaFX is separately bundled, and must be separately installed
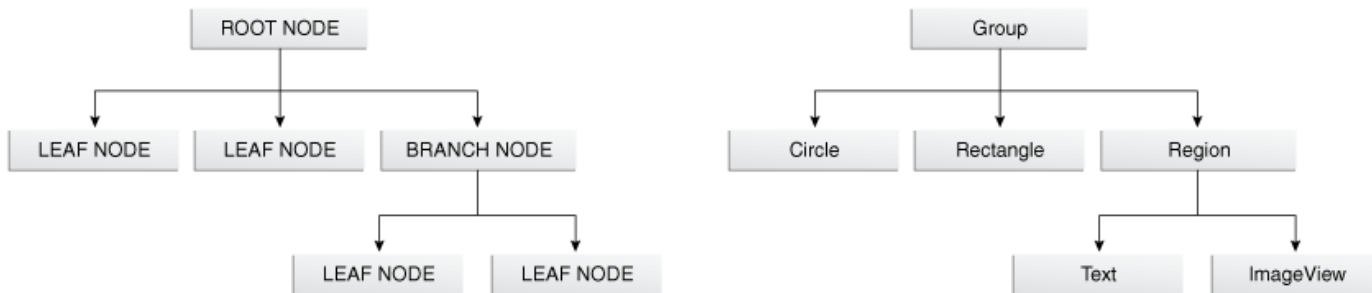- Replaces Swing
- JavaFX HelloWorld

JavaFX

- Extend `javafx.application.Application`
  - Override the `start()` method

- Stage
  - Think of it as a window

- Scene
  - Container for a scene graph

- StackPane
  - *Organizer* of nodes in scene graph
  - Others include `FlowPane`, `TilePane`, `GridPane`, 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;
}
```