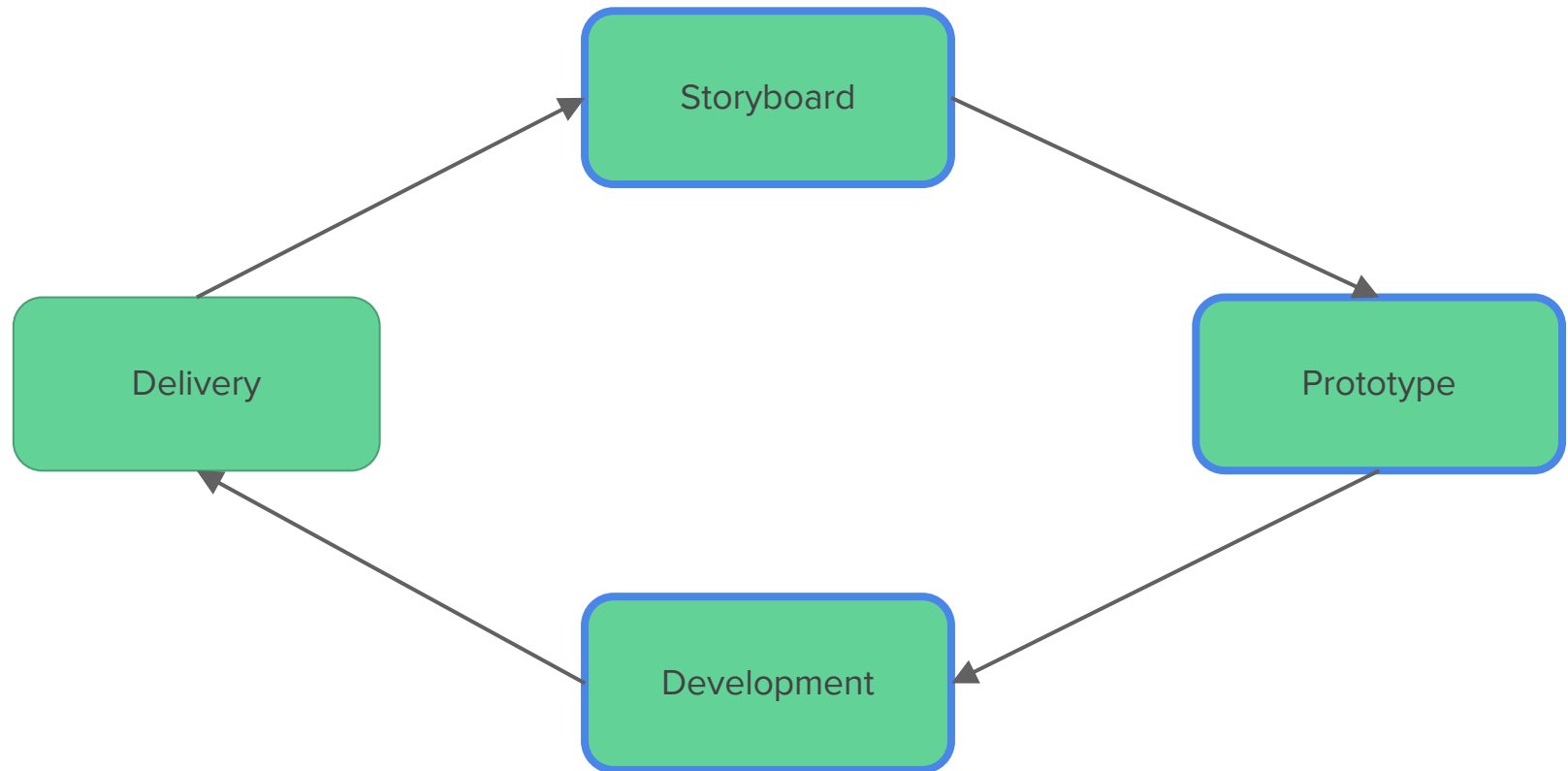


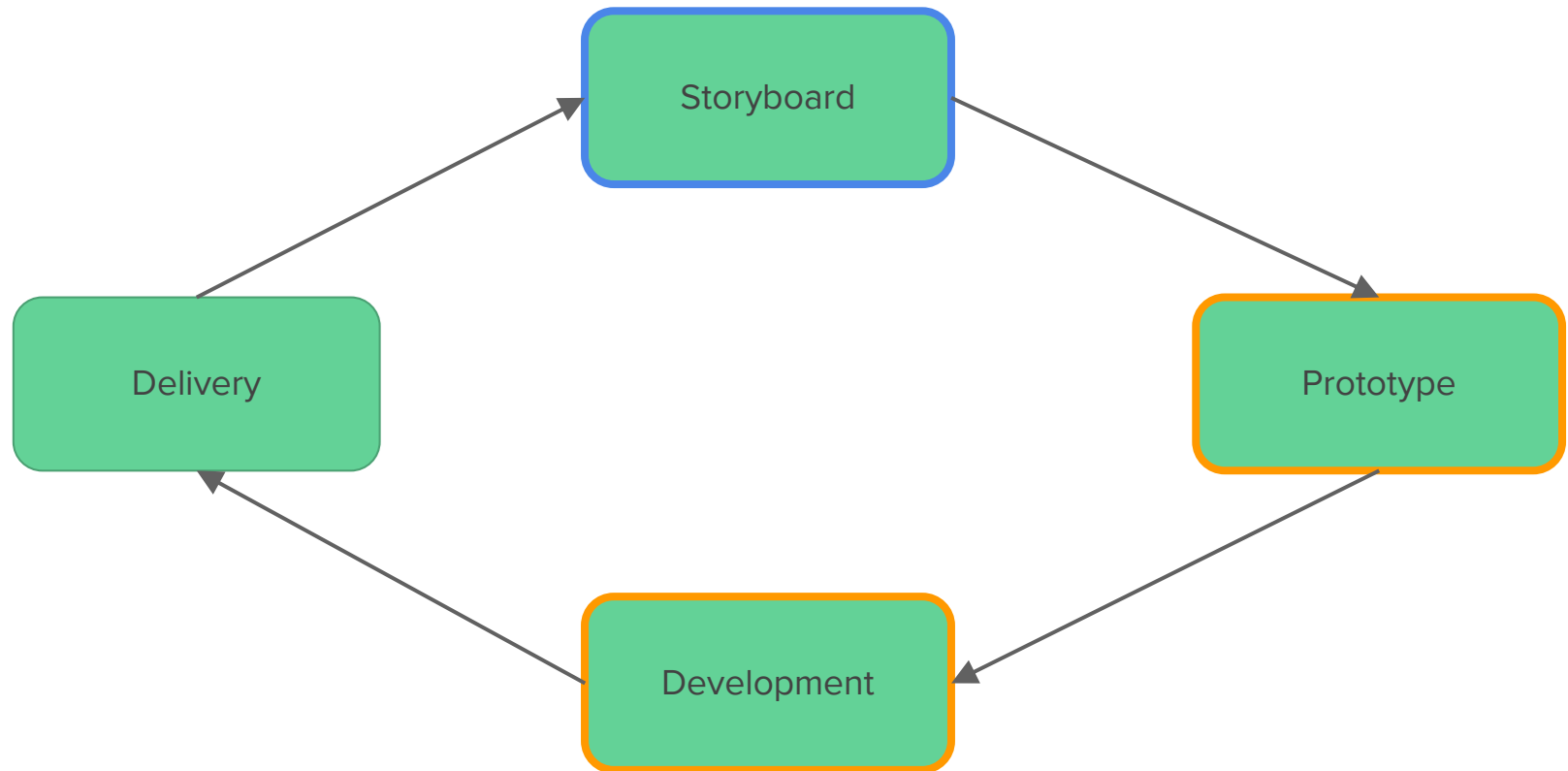
# JavaFX framework

From prototyping to development

# GUI development process



# GUI development process



# Prototype (aka Sketch)

**Student Information**

Student Number: 789-567-234 Help

First Name:

Middle:

Surname:

Salutation:

Date First Enrolled: June 14 2003

Seminars:

Seminar	Term	Mark	Status
CSC 100 Intro to CS	Fall 2003	A+	Passed
CSC 200 Intro to AM	Fall 2003	A	Passed
CSC 203 Advanced AM	Spring 2004	-	Enrolled

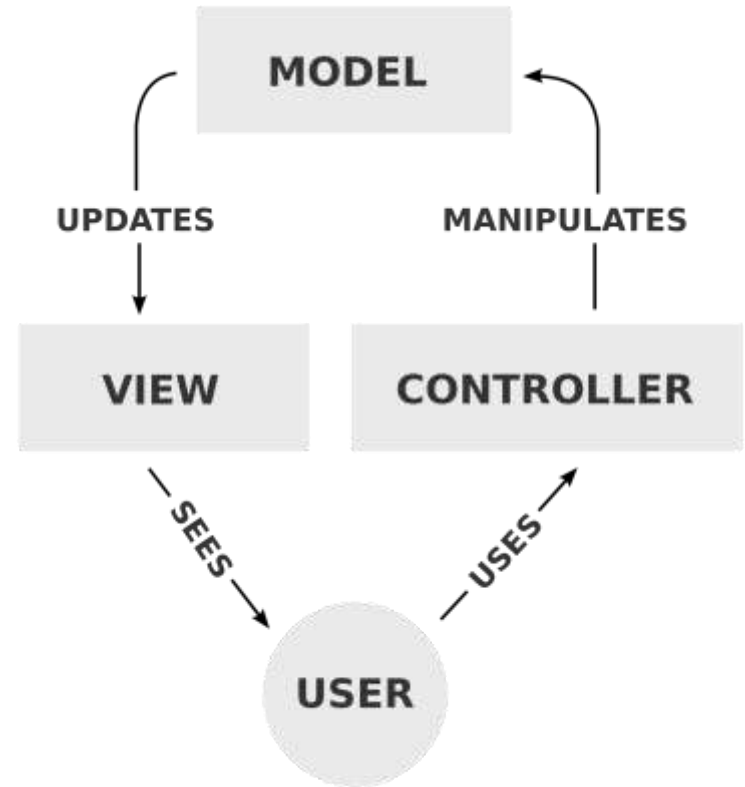
Source : agilemodeling.com



JavaFX technologies

# JavaFX

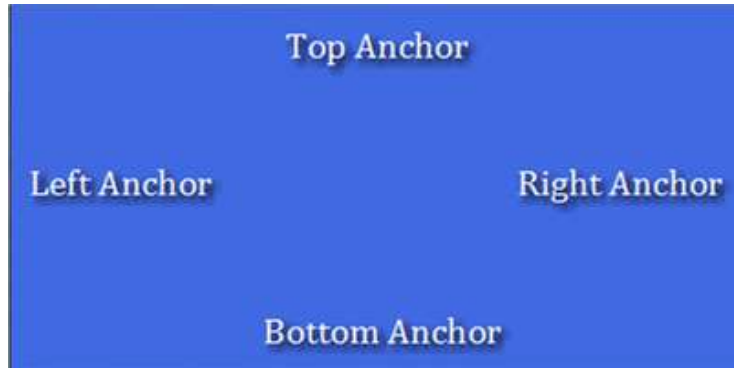
- New GUI API for Java 8
- MVC model
- SceneBuilder for prototyping



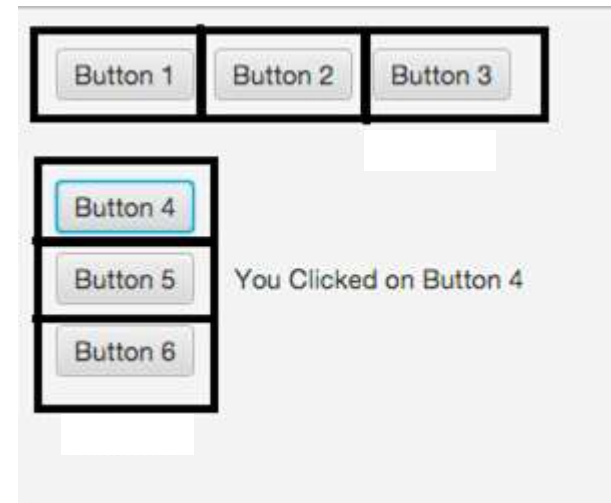
# Components

Containers	Controls	Menus
AnchorPane	Button	Menu
GridPane	Label	MenuItem
BorderPane	TextField	
HBox/VBox	CheckBox	
	RadioButton	
	ComboBox	

# Containers

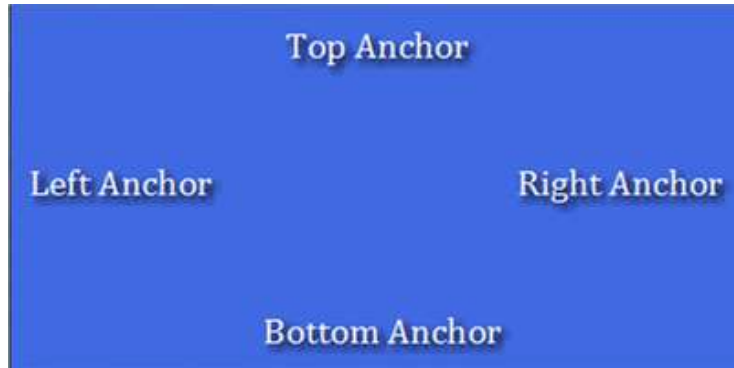


0,0	1,0	2,0	3,0	4,0
0,1	1,1	2,1	3,1	4,1
0,2	1,2	2,2	3,2	4,2
0,3	1,3	2,3	3,3	4,3
0,4	1,4	2,4	3,4	4,4





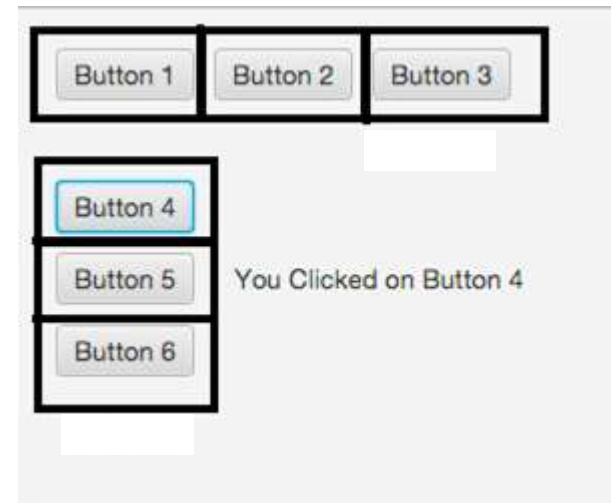
# Containers



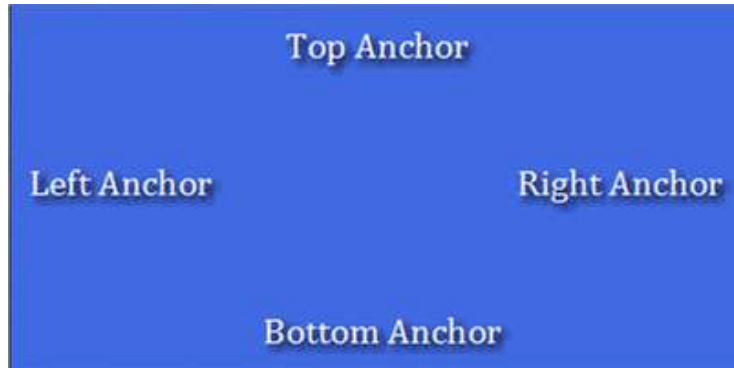
AnchorPane



0,0	1,0	2,0	3,0	4,0
0,1	1,1	2,1	3,1	4,1
0,2	1,2	2,2	3,2	4,2
0,3	1,3	2,3	3,3	4,3
0,4	1,4	2,4	3,4	4,4



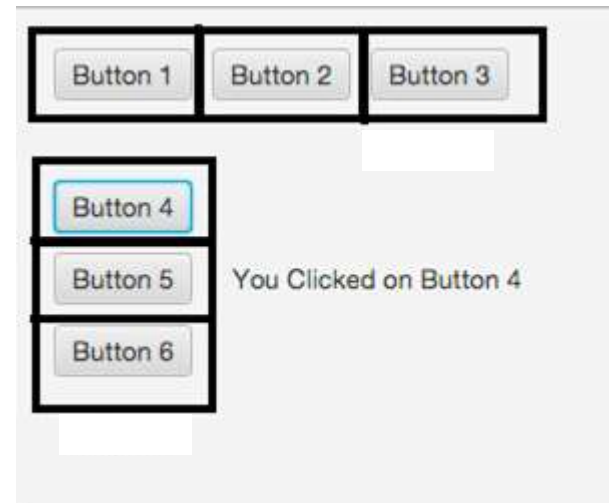
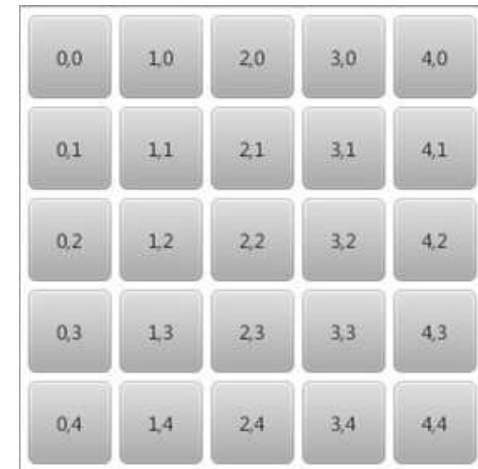
# Containers



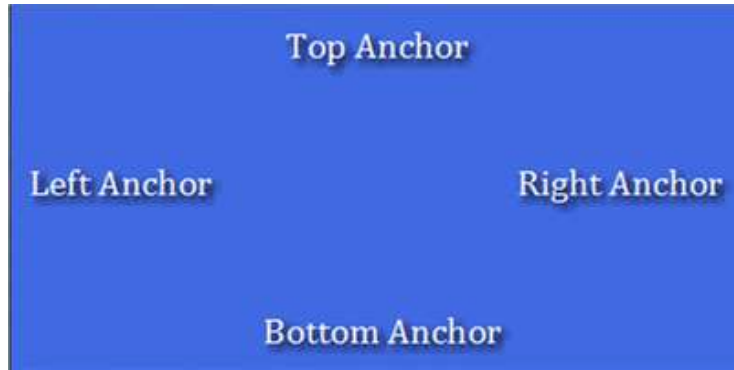
AnchorPane



BorderPane



# Containers



AnchorPane



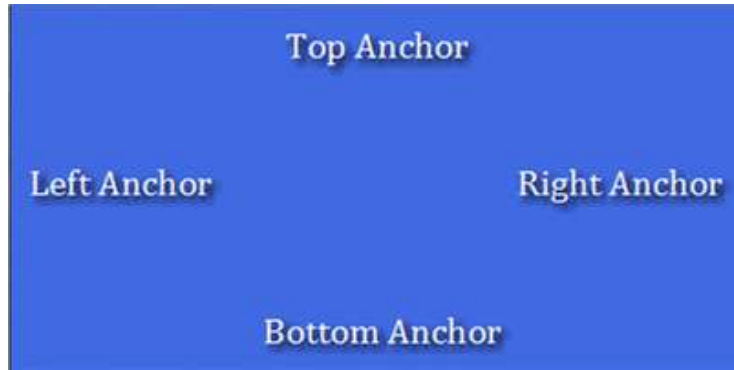
BorderPane

0,0	1,0	2,0	3,0	4,0
0,1	1,1	2,1	3,1	4,1
0,2	1,2	2,2	3,2	4,2
0,3	1,3	2,3	3,3	4,3
0,4	1,4	2,4	3,4	4,4

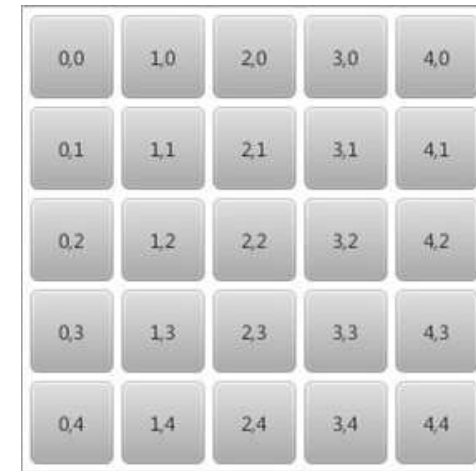
GridPane



# Containers



AnchorPane



GridPane



BorderPane



HBox/VBox

# Controls



# Component

- Properties
  - Specifics parameters
- Layout
  - Common parameters (size, position padding)
- Code
  - Id
  - Mouse / Keyboard actions

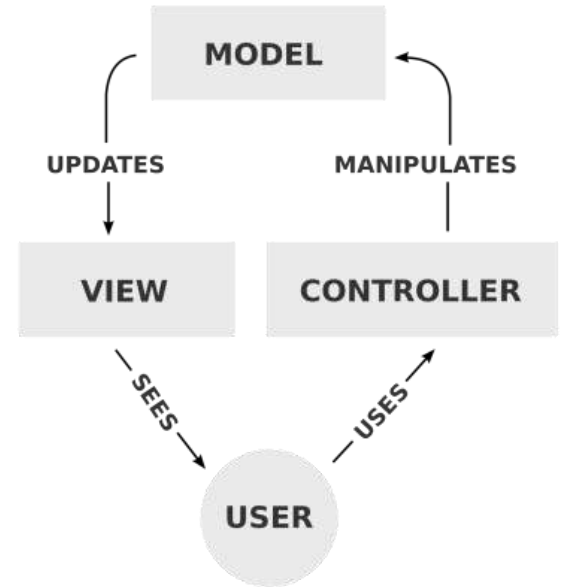
# Styling

```
.button {  
  -fx-text-fill: white;  
  -fx-font-family: "Arial Narrow";  
  -fx-font-weight: bold;  
  -fx-background-color: linear-gradient(#61a2b1, #2A5058);  
}  
|  
.button:hover {  
  -fx-background-color: linear-gradient(#2A5058, #61a2b1);  
}  
  
#welcome-text {  
  -fx-font-size: 32px;  
  -fx-font-family: "Arial Black";  
  -fx-fill: #818181;  
}
```

- CSS based
- .class and #id
- -fx prefix

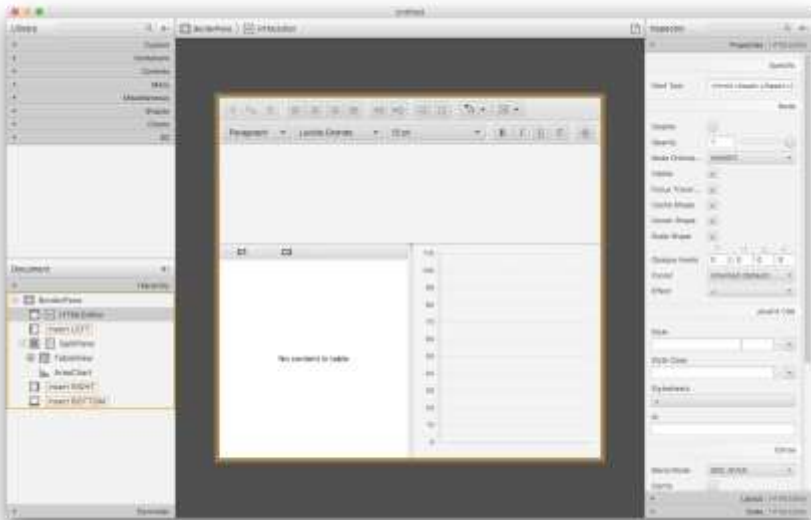
# Prototyping

- Specific tool : SceneBuilder
- Deal with the View (and **ONLY** with it)
- Generate Controller skeleton





# Prototyping

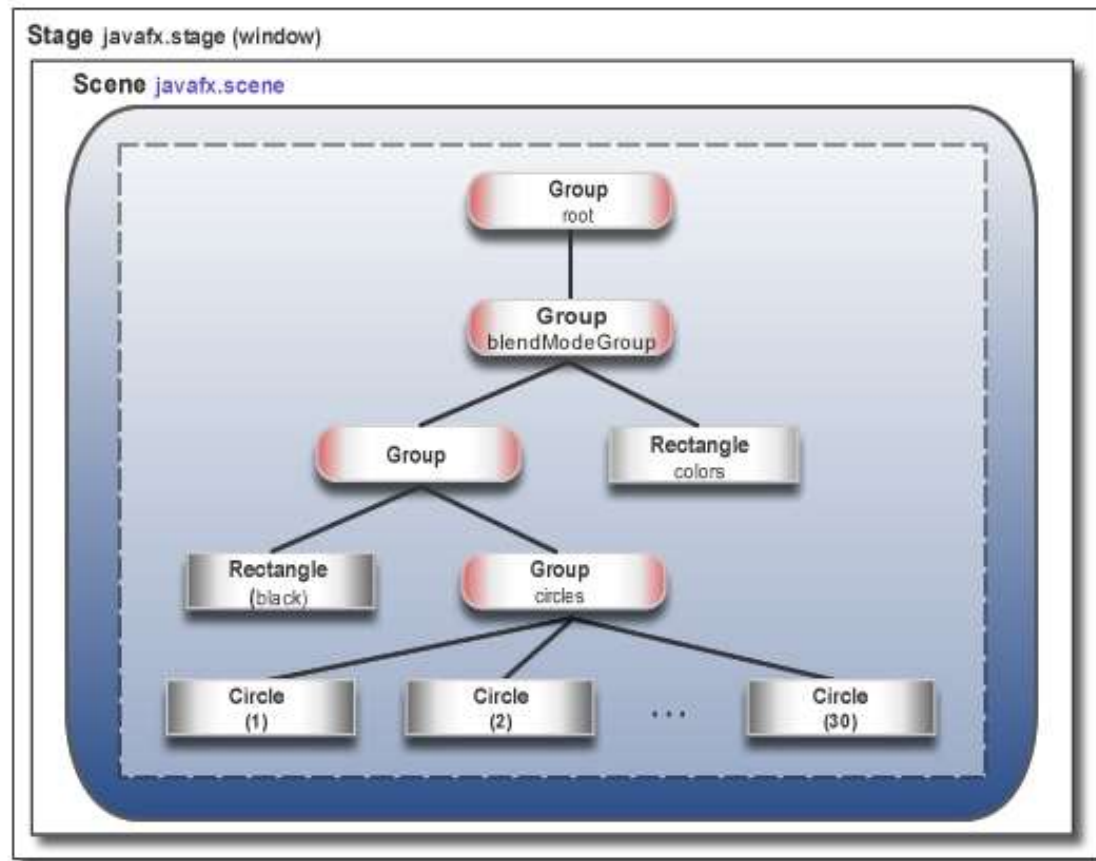


## Design View with SceneBuilder



## Generate Controller with SceneBuilder

# JavaFX framework



# Stage and Scene

- Stage

- Top level container
- Primary stage constructed by the platform

- Scene

- Container of all content in a scene graph
- Entry point for prototype by root node



# Stage and Scene - Code Example

```
import javafx.application.Application;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.scene.text.Text;
import javafx.stage.Stage;

public class HelloWorld extends Application {

    @Override public void start(Stage stage) {
        Scene scene = new Scene(new Group(new Text(25, 25, "Hello World!")));

        stage.setTitle("Welcome to JavaFX!");
        stage.setScene(scene);
        stage.sizeToScene();
        stage.show();
    }

    public static void main(String[] args) {
        Application.launch(args);
    }
}
```



# Tools and documentation

JDK8 : <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

SceneBuilder (Gluon) : <http://gluonhq.com/labs/scene-builder/>

JavaFX documentation : (Tutos, API Documentation, Videos)

<http://www.oracle.com/technetwork/java/javase/documentation/javafx-docs-2159875.html>

Live Example : <https://github.com/clement0210/si3-ihm-live-example.git>

**Demo**

**End**

**ft**

