

CS 213 – Spring 2019

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Lecture 5 – Feb 5

GUI: ListView - 1

Step 1: ListView in AnchorPane

view/List.fxml

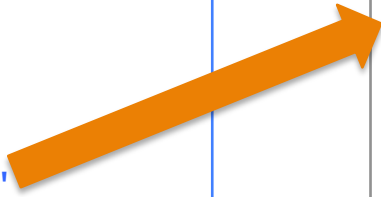
```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.control.ListView?>

<AnchorPane
  xmlns="http://javafx.com/javafx/8.0.60"
  xmlns:fx="http://javafx.com/fxml/1"
  fx:controller="view.ListController">

  <ListView fx:id="listview"
    AnchorPane.topAnchor = "10"
    AnchorPane.leftAnchor = "10"
    AnchorPane.rightAnchor = "10"
    AnchorPane.bottomAnchor = "10"/>

</AnchorPane>
```



ListView is “anchored” to the sides of the containing pane with a 10 pixel margin – View will resize with pane, so that margins are always 10 pixels

ListView is empty at this point – need to populate it

Step 2: Populating with ObservableList

view.ListController

```
package view;

import javafx.collections.FXCollections;
import javafx.collections.ObservableList;
import javafx.fxml.FXML;
import javafx.scene.control.ListView;

public class ListController {
    @FXML
    ListView<String> listView;

    private observableList<String> obsList;

    public void start() {
        // create an ObservableList
        // from an ArrayList
        obsList = FXCollections.observableArrayList(
            "Giants",
            "Patriots",
            "...",
            "Jaguars");
        listView.setItems(obsList);
    }
}
```

Step 3: Loading and Displaying

app.ListApp

```
package app;
...

public class ListApp extends Application {

    public void start(Stage primaryStage)
    throws Exception {
        FXMLLoader loader = new FXMLLoader();
        loader.setLocation(
            getClass().getResource("/view/List.fxml"));
        AnchorPane root = (AnchorPane)loader.load();

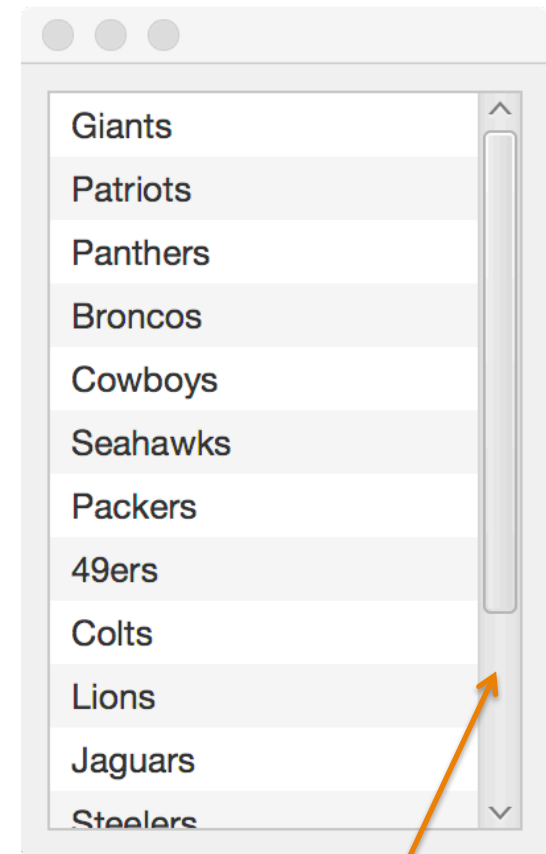
        ListController listController =
            loader.getController();
        listController.start();

        Scene scene = new Scene(root, 200, 300);
        primaryStage.setScene(scene);
        primaryStage.show();
    }

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

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Scroll bar automatically appears
if list is longer than view area

Remember:

DO NOT CREATE A CONTROLLER
INSTANCE with `new` – it will not have any
connection to the FXML-sourced widgets
with which the user will interact

The way to get at the controller instance
that links to the FXML layout is to call
`getController()` on the `FXMLLoader`
AFTER you call `load()` on it