

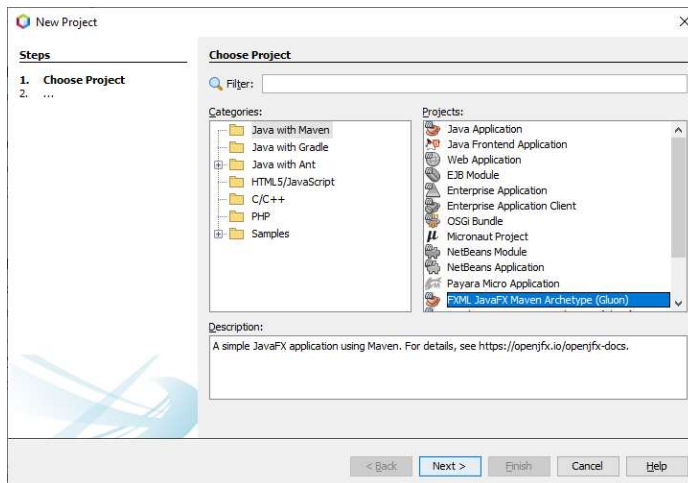
Lab – Java - JavaFX - ListView

Overview

Write a JavaFX application that uses a ListView. The ListView will display TV show names.

Create Project

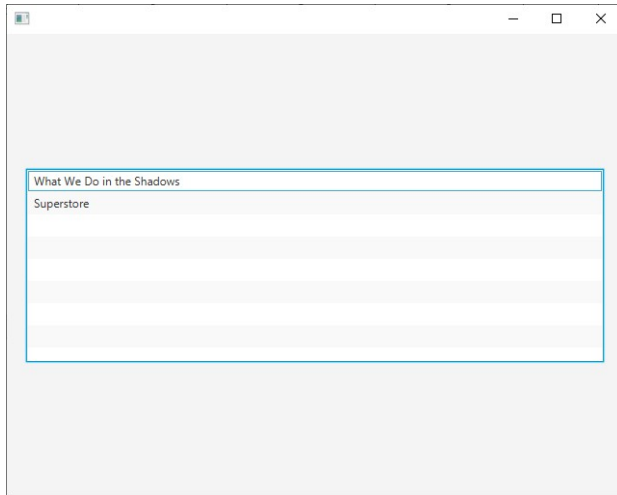
1. Create a new FXML project. Choose FXML JavaFX Maven Archetype (Gluon). Here is a screenshot:



Add ListView with Data

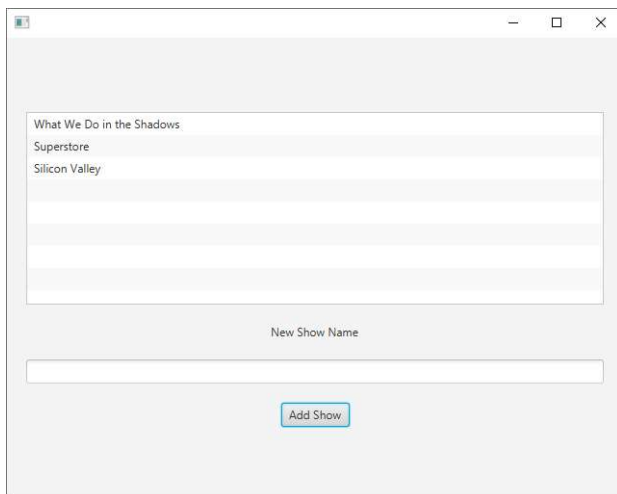
1. Update the primary.fxml GUI file.
 - a. Remove the Label and Button controls that are given by default.
 - b. Add a ListView to the VBox.
 - c. Set the fx:id of the ListView to listViewShows.
2. Update the PrimaryController class.
 - a. Add a private member variable for the ListView to the PrimaryController class. Make sure it has the @FXML annotation.
 - b. Add an initialize method with the following header: `public void initialize()`
 - c. Add code to the initialize method to add the following strings to the ListView: "What We Do in the Shadows" and "Superstore".

Here is a screenshot of what the window should look like:



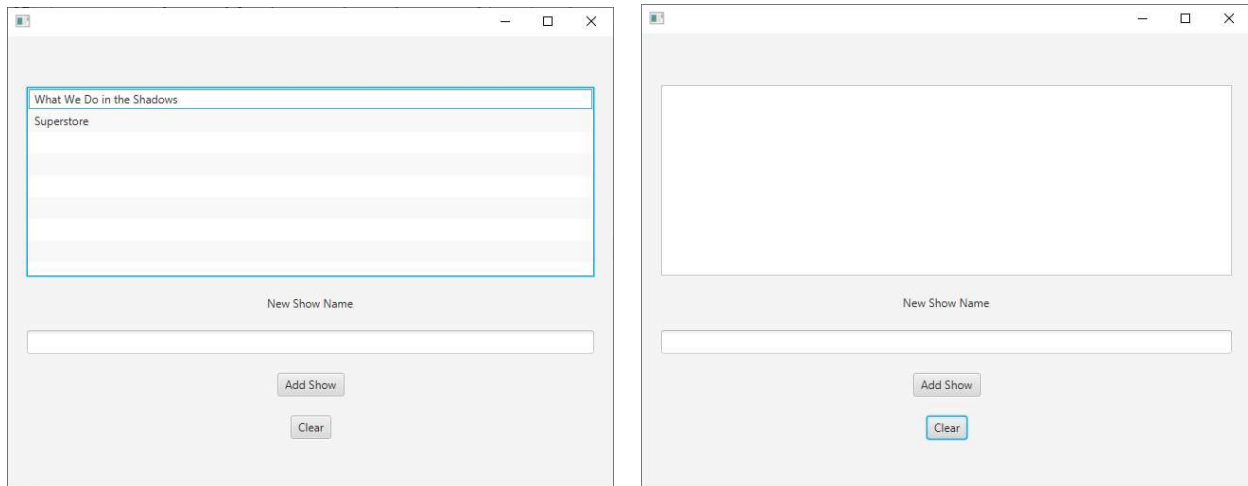
Allow Users to Add Shows

Update the GUI so that the user can add new shows to the list. You will need to add a Label, a TextField, and a Button to the GUI. When the user presses the Add Show button it should add the show they typed in to the ListView. The TextField should be cleared automatically after adding the new show to the ListView. Following is a screenshot of what it should look like after adding "Silicon Valley":



Part 3

Update the GUI so that the user can clear the ListView. Add a Clear button below the Add Show button. Following are screenshots before and after the Clear button:



Part 4

Add code to handle a ListView item selection. When a ListView item is selected it should print a message in the console window. Here is a screenshot of what you should see in the output window when Superstore is clicked:



Part 5

Update the application so that it can read show names from a file. You will need to do the following:

1. Create a new text file in the project directory. Add show names on separate lines to the file (sample input file below).
2. Add a button to the GUI. Place the button below the Clear button. The button should say "Read From File".
3. Add an event handler for the Read From File button. This event handler should use a FileChooser to get the selected file from the user. Once you have the selected file you should open it and read the data in. Each piece of data should be added to the ListView. The ListView should only contain data from the file (clear the ListView before adding the file's data).

Here is what it should look like after the data is read from a file (when you click the Read From File button you should see an open file dialog first):

The screenshot shows a Java Swing window with a title bar containing standard OS controls. The window's content area has a light gray background. At the top, there is a list box containing the text "Discovery", "The Good Place", and "It's Always Sunny in Philadelphia". Below the list box is a text field labeled "New Show Name". Underneath the text field are three buttons: "Add Show", "Clear", and "Read From File". The "Read From File" button is highlighted with a blue border.

Sample Input File

Discovery
The Good Place
It's Always Sunny in Philadelphia