

# Java Programming

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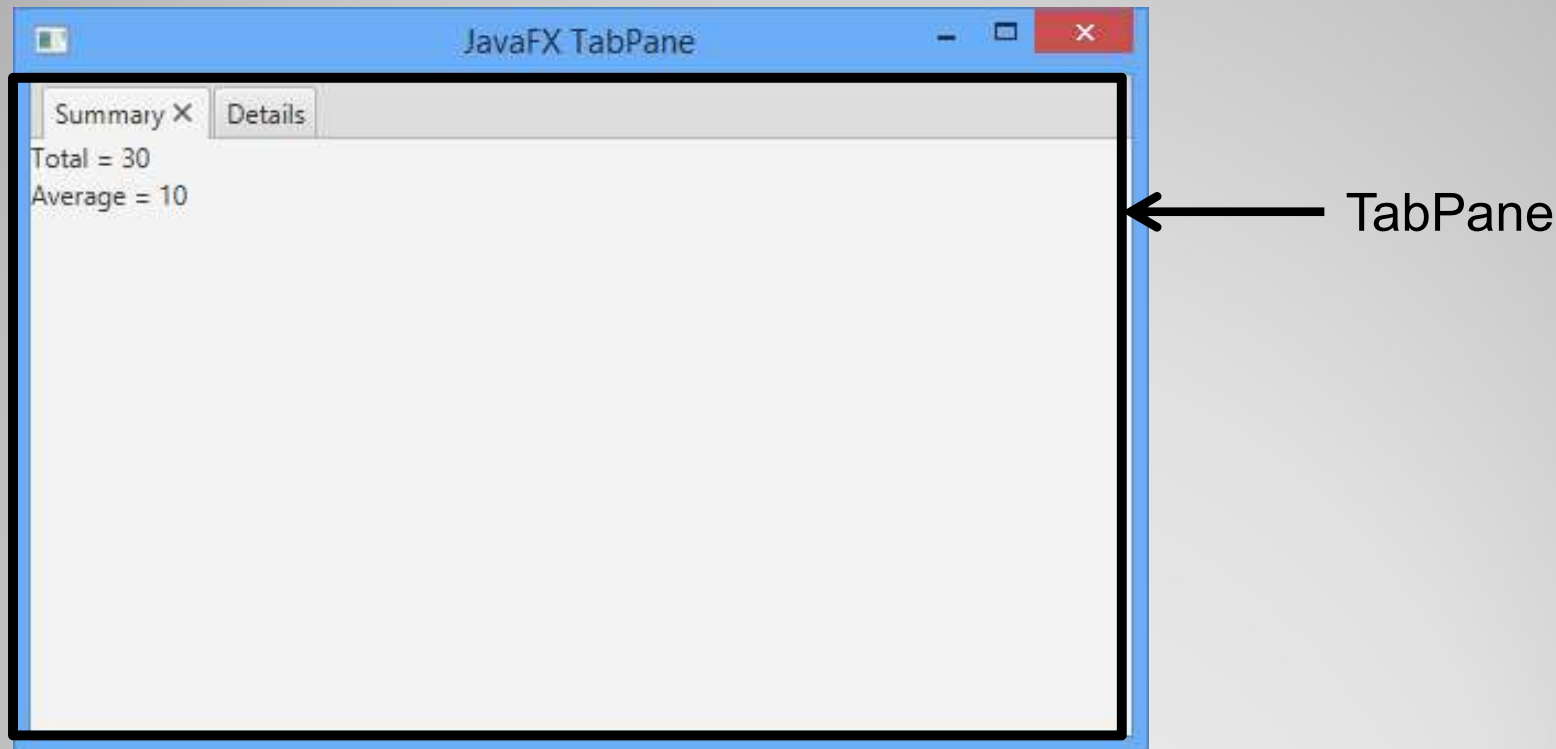
- JavaFX
- TabPane

## Today's Lecture

- TabPane
- A control that allows switching between a group of tabs.
- For example...

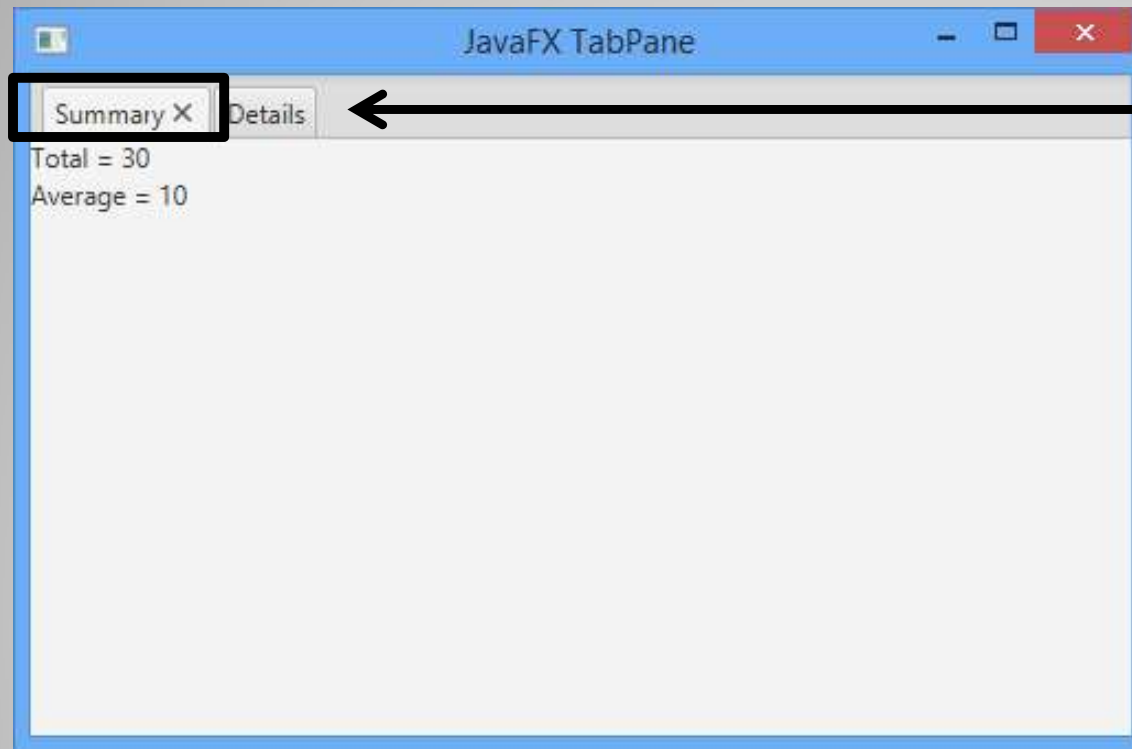
**TabPane**

- TabPane allows users to switch back and forth and view different displays.
- Contains multiple tabs.



# TabPane

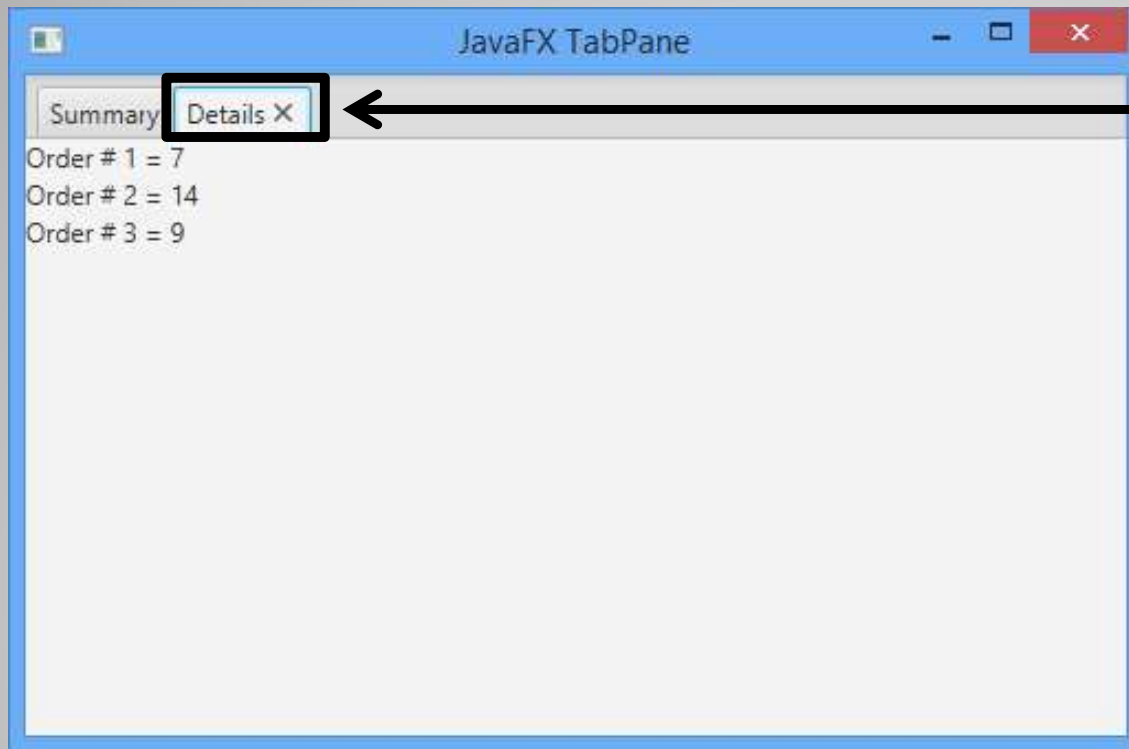
- Each tab displays different controls and serves its own purpose.
- Summary tab is displayed. Shows summary data.



Summary tab is currently selected

# Tab

- Each tab displays different controls and serves its own purpose.
- Details tab is displayed. Shows detail data.



Details tab is  
currently selected

# Tab

# TabPane

- FXML Import needed:  
`<?import javafx.scene.control.TabPane?>`
- Control for one menu item.
- Java Declaration: `TabPane tabPane;`
- FXML:

`<TabPane>`

other code goes here (on upcoming slide)...

`</TabPane>`

# TabPane

# Tab

- FXML Import needed:

```
<?import javafx.scene.control.Tab?>
```

- Control for one menu item.
- Java Declaration: `Tab tab;`
- FXML:

```
<Tab>
```

other code goes here (on upcoming slides)...

```
</Tab>
```

# Tab



- TabPane with 2 tabs and tab contents in same file

```
<TabPane>
  <tabs>
    <Tab fx:id="summaryTab" text="Summary">
      <VBox>
        <Label text="Total = 30" />
        <Label text="Average = 10" />
      </VBox>
    </Tab>
    <Tab fx:id="detailsTab" text="Details">
      <VBox>
        <Label text="Order #1 = 7" />
        <Label text="Order #2 = 14" />
        <Label text="Order #3 = 9" />
      </VBox>
    </Tab>
  </tabs>
</TabPane>
```

**Summary Tab Controls**

**Details Tab Controls**

## TabPane with 2 Tabs – Tabs Defined in Same File

## FXML Include

- You can bring in content from other FXML files using the include element.
- FXML:

<Tab>

**<fx:include source="other.fxml" />**

</Tab>



Replaces the <fx:include>  
element with the contents  
of the file other.fxml

# FXML Include

- Sample TabPane with 2 tabs.
- Each tab has controls defined in other .fxml files.

```
<TabPane>
  <tabs>
    <Tab fx:id="summaryTab" text="Summary">
      <fx:include source="Summary.fxml"/>
    </Tab>
    <Tab fx:id="detailsTab" text="Details">
      <fx:include source="Details.fxml"/>
    </Tab>
  </tabs>
</TabPane>
```

Replaces this with  
the contents of  
Summary.fxml

Replaces this with  
the contents of  
Details.fxml

## TabPane with 2 Tabs – Tabs Defined in Other File

- Tab closing policy.
- You can remove the ability to close **any** tab in a TabPane by setting tabClosingPolicy on the TabPane. For example:

**<TabPane tabClosingPolicy="UNAVAILABLE">**

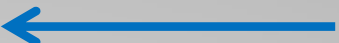
- You can remove the ability to close an **individual** tab by setting closable to false on the Tab itself. For example:

**<Tab closable="false">**

## Remove Closeable on Tabs

```
// Create a new TabPane control
```

```
TabPane tabPane = new TabPane();
```



Create TabPane

```
// Other TabPane setup code goes here...
```

```
// This will be code to setup tabs and add controls to them.
```

```
// Sample tab creation code on next slide.
```

```
// Make the tabPane the root of the scene
```

```
Scene scene = new Scene(tabPane, 500, 300);  
primaryStage.setScene(scene);
```



Put TabPane in  
scene

Note: A TabPane does not have to be the root of a scene. It can also be placed as a child in a scene like any other control.

## Create TabPane Java Code

```
Tab summaryTab = new Tab();  
summaryTab.setText("Summary");
```

← Create new Tab  
← Set title for Tab

```
VBox summaryVBox = new VBox();
```

← Root pane for the Tab

```
// Setup the labels and add to the VBox
```

```
Label totalLabel = new Label("Total = 30");
```

```
Label averageLabel = new Label("Average = 10");
```

```
summaryVBox.getChildren().add(totalLabel);  
summaryVBox.getChildren().add(averageLabel);
```

← Add labels to VBox  
← root pane

```
// Set the VBox as the root of the summary tab
```

```
summaryTab.setContent(summaryVBox);
```

← Set the root of the Tab

```
// Add the summary tab to the tab pane
```

```
tabPane.getTabs().add(summaryTab);
```

← Add the Tab to the TabPane

## Create Java Tab Java Code

**End of Slides**

Written by Arthur Hoskey, Ph.D.