

# Java Programming

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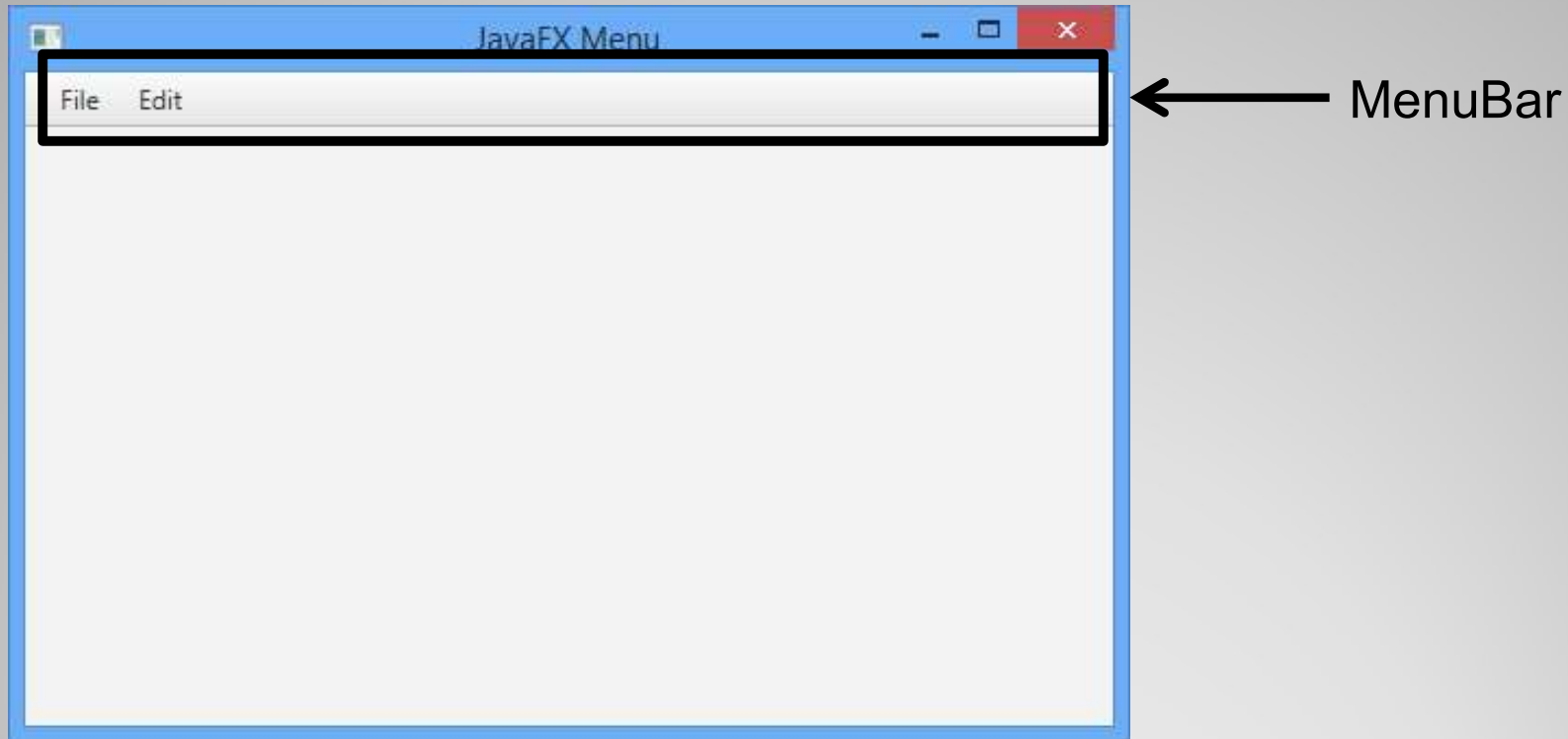
- JavaFX
- Various control descriptions
  - MenuBar
  - Menu
  - MenuItem
  - SeparatorMenuItem
- Menu Item Event Handling

## Today's Lecture

- You can create menus using JavaFX FXML
- MenuBar – Goes across the top.
- Menu – One set of choices (contains menu items)
- MenuItem – The user chooses these. Actions happen when the user selects a menu item.
- SeparatorMenuItem – Used to group menu items.

## Menus

- Contains multiple Menu instances
- Should be placed at the top of the window



# MenuBar

## MenuBar

- FXML Import needed:

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

- Control that contains menus.
- Java Declaration: `MenuBar menuBar;`
- FXML:

```
<MenuBar>
```

```
  <menus>
```

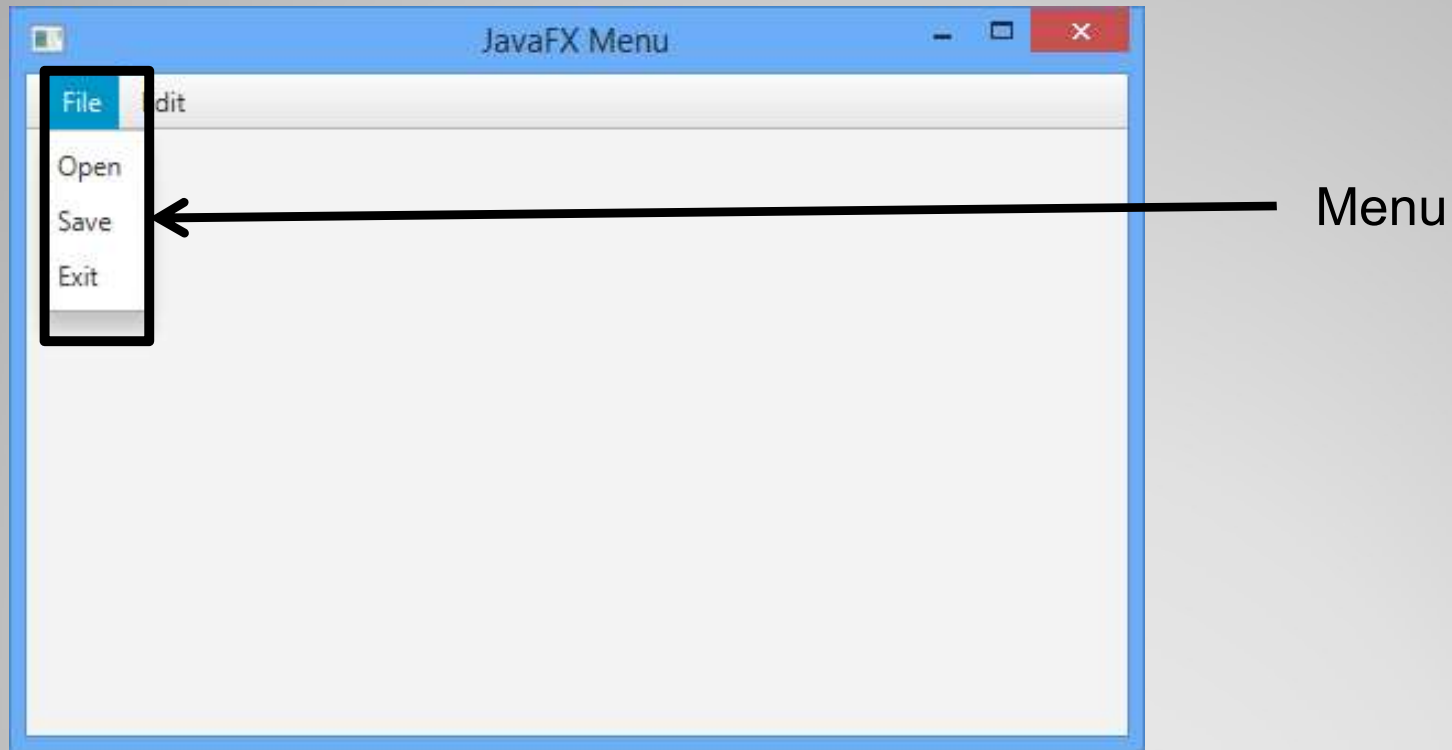
```
    menus go here...
```

```
  </menus>
```

```
</MenuBar>
```

# MenuBar

- Menu - One set of menu items.
- A part of the menu bar.



# Menu

# Menu

- FXML Import needed:

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

- Control that contains menu items.
- Java Declaration: `Menu menu;`
- FXML:

```
<Menu text="File">  
  <items>
```

menu items go here...

```
</items>
```

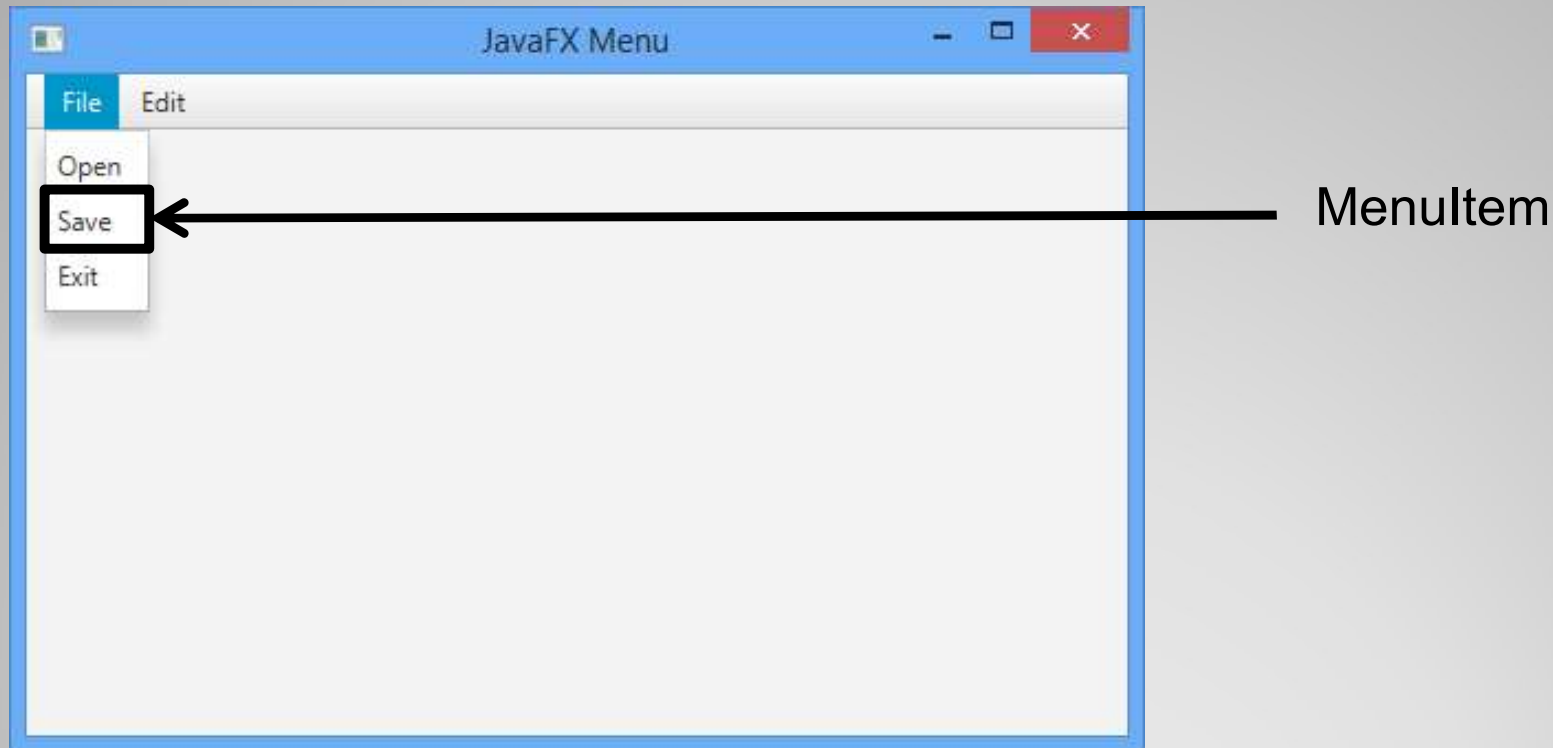
```
</Menu>
```

# Menu



**Menu name  
(text attribute)**

- The user selects menu items.
- Actions happen when menu items are selected.



# MenuItem



## MenuItem

- FXML Import needed:

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

- Control for one menu item.
- Java Declaration: MenuItem menuItem;
- FXML:

```
<MenuItem text="Exit"/>
```



Menu item name  
(text attribute)

# MenuItem

- Java controller code (contains menu item event handler):

```
public class MainController {  
    @FXML  
    private MenuItem testMenuItem;
```

```
    @FXML  
    protected void handleTestMenuItemAction(final ActionEvent event)  
    {  
        System.out.println("Exit button pressed");  
    }  
}
```

Event handler  
method  
(in controller class)



- FXML code:

```
<MenuItem fx:id="testMenuItem" text="Test"  
onAction="#handleTestMenuItemAction">  
    other code goes here...  
</MenuItem>
```

Put name of event handler  
method in onAction (must  
have # prefix)



# MenuItem Event Handling

## SeparatorMenuItem

- FXML Import needed:

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

- You can add separators (lines) to menus to divide menu items into groups.
- Java Declaration: `SeparatorMenuItem sepMenuItem;`

```
<SeparatorMenuItem />
```

# SeparatorMenuItem

- This sample FXML code shows the hierarchy of the menu bar, menu, and menu item.

```
<MenuBar>  
  <menus>  
    <Menu text="File">  
      <items>  
        <SeparatorMenuItem />  
        <MenuItem fx:id="exitMenuItem" text="Exit" onAction="#handleExitAction"/>  
      </items>  
    </Menu>  
  </menus>  
</MenuBar>
```

## Menu Example

**End of Slides**

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