

Homework – Java 008

JavaFX

Root folder: `java_training/assignments/java_008/`

Background

You will be inspiring yourself from the code samples provided to you and may have to do a little bit of research on your own.

Assignments

- Head or Tail (GUI style)
- Game of Dice (GUI style)
- Grid Layout Challenge
- Create a BasicJavaFXListView2 app
- 2 Scenes to a Stage

Head or Tail

folder: `headortail`

Quick Description

Based on your `java_007`, you will refactor the game of Head of Tail to use JavaFX.

App features

Create a title “Head of Tail”

Have a button that goes “Click to Flip!”

Have a label which initially starts with “waiting...”

When the button is clicked, it will provide an output of the result

Have another button that goes “Reset” and when you press it, it resets the label to “waiting...”

Game of Dice

folder: `gameofdice`

Quick Description

Based on your `java_007`, you will refactor the game of dice using JavaFX

App features

Inspire yourself from the previous Head or Tail assignment in this document to get your app design and working.

Grid Layout Challenge

folder: gridlayoutchallenge

Quick Description

One core requirement of your pre-term assignment is to create a matrix of seats for a room (10x10), use the previous Swing example to help guide you.

Using JavaFX, here's the challenge

- Generate a random number for a count of rows and columns.
- rows between 2 and 5
- columns between 2 and 5
- Create a border layout where you have a top, center and bottom region
- The top region is nothing more than a centered label with the words: "Basic Matrix Demo"
- The bottom region will contain a label that will contain "No seat selected"
- The center region will contain a panel that will host a grid layout.
- Your 'grid layout' will be dynamic based on the random values you generated
- Your output should be coordinates based on letters A to .. for your rows and 1 to .. for your columns.
- Each "cell" so to speak will be a panel which will contain a BoxLayout with Y_AXIS, the top part is the label of the "cell" and the bottom part is a button which will contain the same content as the above created label.

Create a BasicJavaFXListView2 app

folder: basicjavafxlistview2

Quick Description

Based on the BasicJavaFxListView demo app

- Add a textfield
- Use an "add" button and also implicitly use an Enter key to add a new entry to the list
- Ensure you have a "delete" button available
- The workflow is select an item from the list and click "Delete" and it should remove it from the list
- If there are no items, the "delete" should be able to safely ignore the empty list
- Should be mentioned that this is all JavaFX code.

2 Scenes to a Stage

folder: scenes2

Quick Description

Try to add 2 scenes to a stage

- The stages should be side by side (HBox?)
- Left Stage has 200 pixels in width
- Right Stage has 400 pixels in width
 - The left stage contains a quick form with the following combination of labels and fields
 - name
 - date of birth
 - Have an add button
 - Have a clear button to clear both fields
 - Use can use a VBox to control the layout of the fields
- Right Stage has a listview
 - Ensure you have the name and date of birth displaying in the listview (as a single string?)
 - If you click in the listview it will populate the left stage with the data