GCS-124-02 SoftDev II

2/7/2024

# TOC

* [Housekeeping](#_Housekeeping)
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* [GUI (JavaFX)](#_GUI_(JavaFX))

#### Housekeeping

* First practicum includes classes, states, methods, interfaces, abstract classes, polymorphism
* Likely no UML on a test. Likely will be given a JUNit test or asked to make one.

#### Notes

* **PTUI (plain text user interface)**: cli-based ui.
* When typing a Java class thing, pressing tab makes the linter automatically import the libraries.
* Friday will go over more GUI, and set up for Reversi
* Monday will cover MVC, notification

#### GUI (JavaFX)

* A GUI is written by extending the Application class.

public class HelloFX extends Application {  
  
 @Override  
 public void start(Stage primaryStage) throws Exception {  
 primaryStage.setTitle("Hello, World!");  
 primaryStage.show();  
 }  
  
 public static void main(String[] args) {  
 launch(args);  
 }  
   
}

* GUIs are allowed to show only one thing (scene) at a time.
* **Controls (called “nodes” in Java)**: graphical element of a GUI, ex. a Java Label is a type of control. It is simply text.

public class LabelActivity extends Application {  
  
 @Override  
 public void start(Stage primaryStage) throws Exception {  
 Label label = new Label("Hello, World!");  
 Scene scene = new Scene(label);  
  
 primaryStage.setScene(scene);  
 primaryStage.setTitle("Some GUI");  
 primaryStage.show();  
 }  
   
 public static void main(String[] args) {  
 launch(args);  
 }  
}

* **Customization** - label.set<something>(args). You can use CSS.

@Override  
 public void start(Stage primaryStage) throws Exception {  
 Label label = new Label("Hello, World!");  
 label.setFont(new Font("Monospaced", 48));  
 label.setPadding(new Insets(40));  
 label.setTextFill(Color.RED);  
 label.setAlignment(Pos.CENTER);  
  
 Scene scene = new Scene(label);  
  
 primaryStage.setScene(scene);  
 primaryStage.setTitle("Some GUI");  
 primaryStage.show();  
 }

* **Layer**: container where nodes can be added (ex: HBox and VBox)