

GCS-124-02 SoftDev II

2/7/2024

TOC

- Housekeeping
- Notes
- 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)