GitHub Repository: github.com/tesfaj762/CS449_SOS_Game.git

Sprint #0 Report

Instructions

Objectives

- Make decisions on the SOS software development project.
- Learn unit testing and GUI programming in the language of your choice.

Deliverables and Grading Policy

Read the "CS 449 Homework Overview" document **carefully** and make the key decisions for the software development. Use the following template to complete your report.

1. Key Decisions of the SOS Project (2 points)

Object-oriented programming language	Java
GUI library (strongly encouraged)	JavaFx
IDE (Integrated Development Environment)	IntelliJ
xUnit framework (e.g., JUnit for Java)	JUnit 5
Programming style guide (must read it carefully)	Google Java style
Project hosting site	Github.com
Other decisions if applicable	Gradle for build

Sample programming style guides:

- Google Java Style Guide: https://google.github.io/styleguide/javaguide.html
- Google C++ Style Guide: https://google.github.io/styleguide/cppguide.html
- Google Python Style Guide: https://google.github.io/styleguide/pyguide.html

2. Unit testing (4 points)

Find a tutorial on the unit test framework you have chosen and write at least two xUnit tests of a program you have written or found elsewhere. Attach here (1) the screenshot of your program execution and (2) the source code of your program.

Test Summary

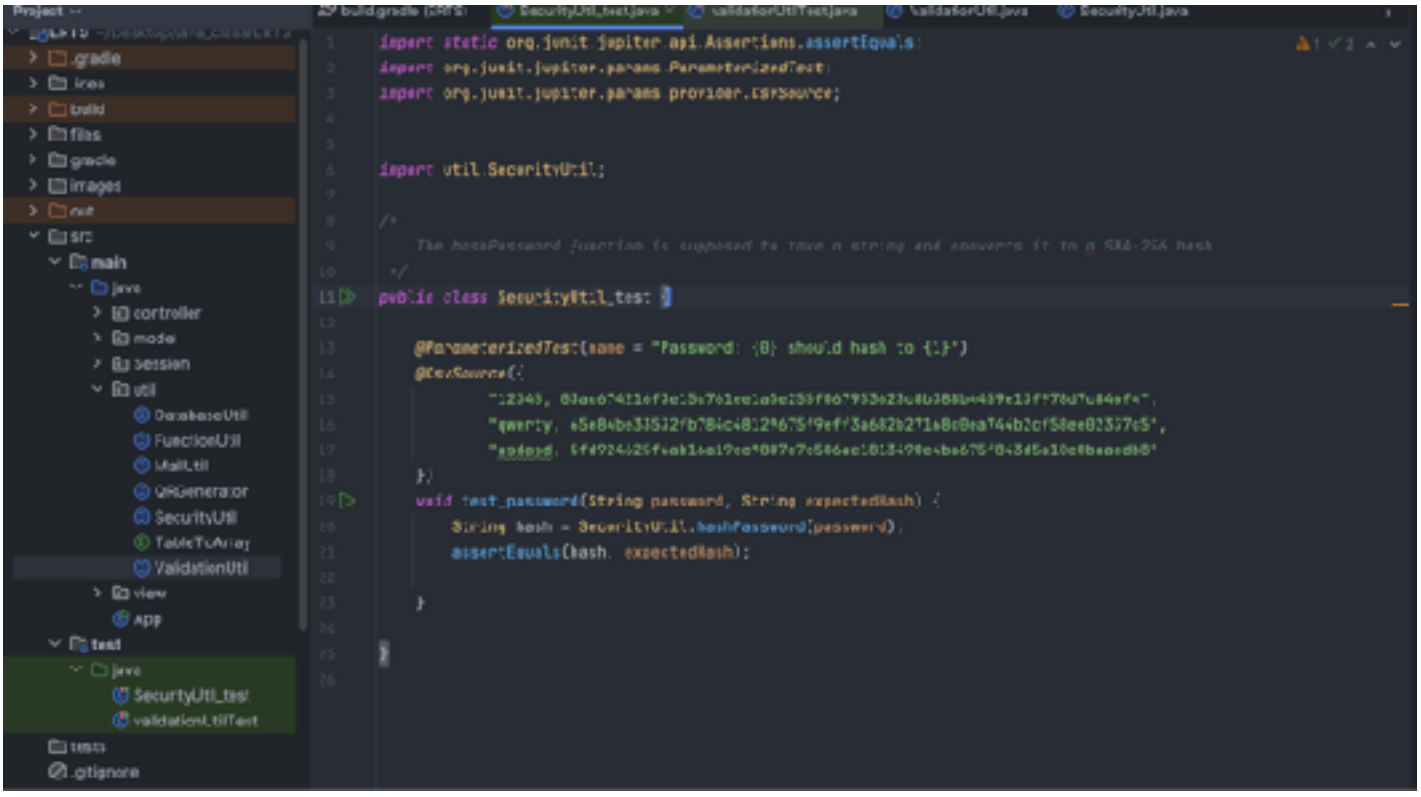
4	1	0	0.021s
tests	failures	ignored	duration

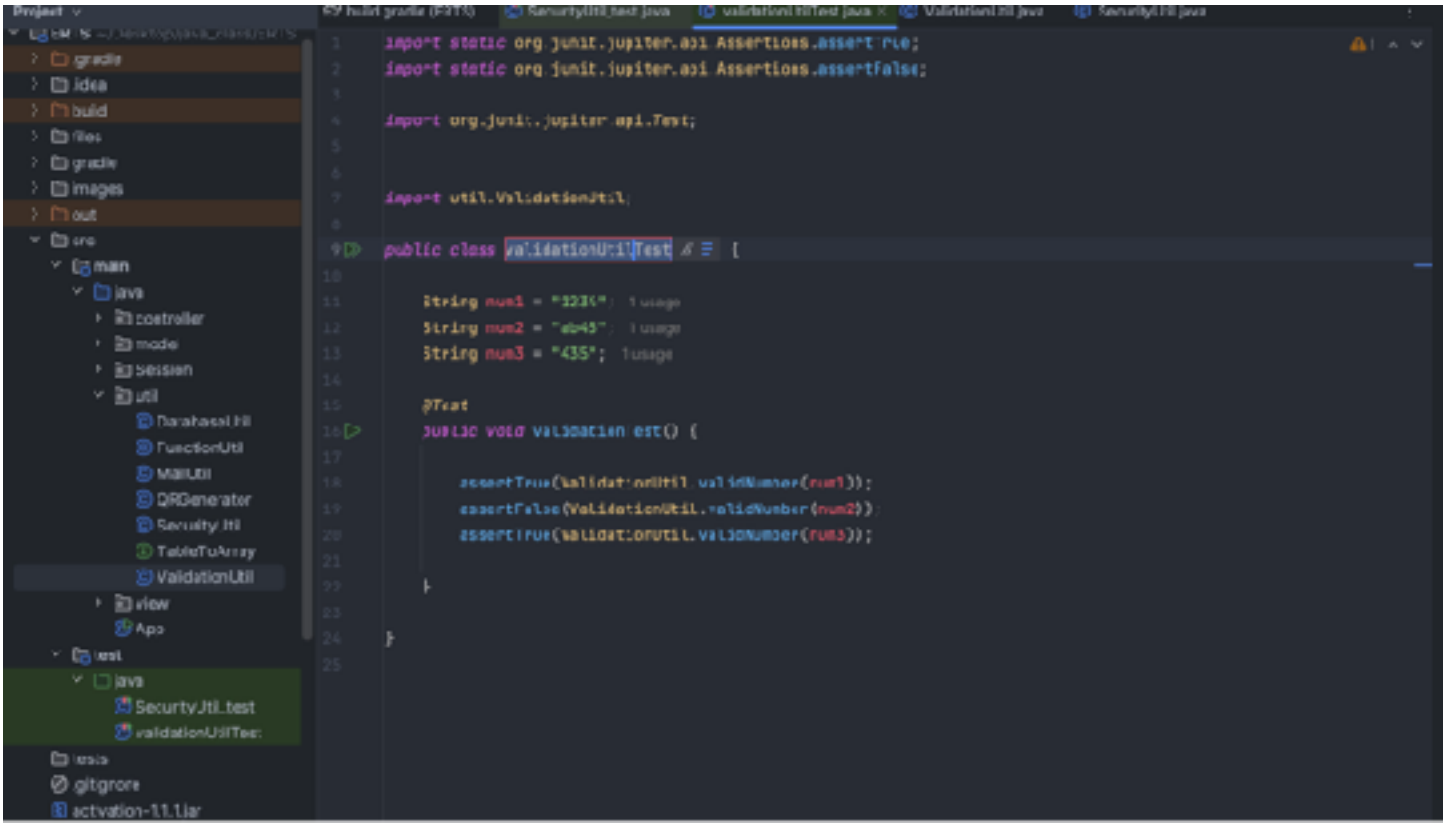
75%
successful

Failed tests | Packages | **Classes**

Class	Tests	Failures	Ignored	Duration	Success rate
SecurityUtil_test	3	1	0	0.020s	66%
validationUtilTest	1	0	0	0.001s	100%

Generated by Gradle 8.12 at Sep 9, 2025, 9:38:48 PM

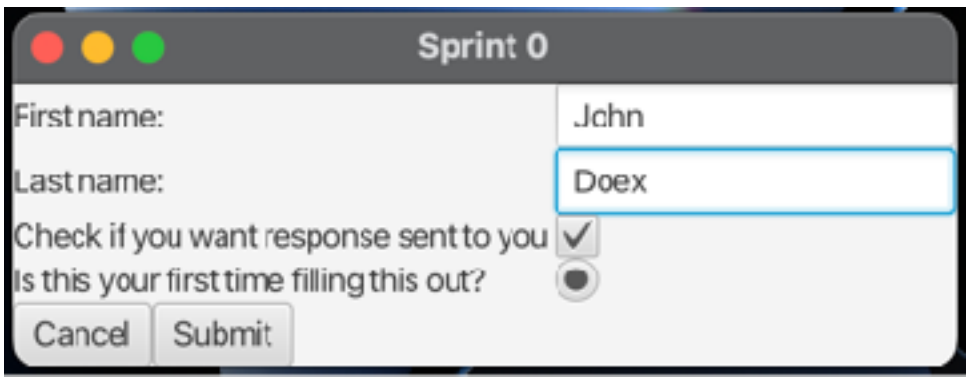


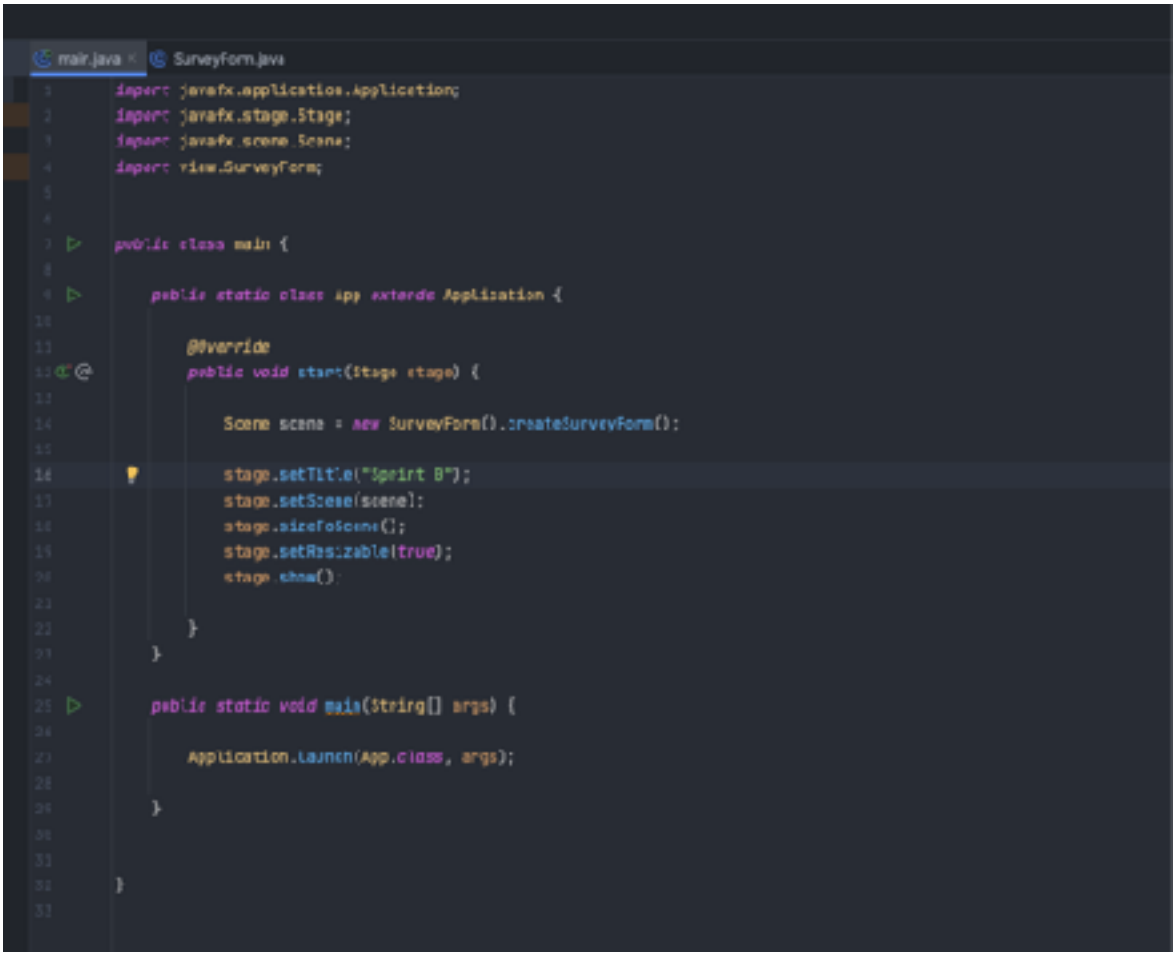


3. GUI programming (4 points)

Write a GUI program in the language you have chosen for your SOS project. The GUI of your program must include text, lines, a check box, and radio buttons. While you are recommended to consider the GUI for the SOS game board, it is not required. In this assignment, any GUI program of your own work is acceptable.

Attach here (1) the screenshot of your program execution and (2) the source code of your program.





```java
import javafx.application.Application;
import javafx.stage.Stage;
import javafx.scene.Scene;
import view.SurveyForm;


public class main {

    public static class App extends Application {

        @Override
        public void start(Stage stage) {

            Scene scene = new SurveyForm().createSurveyForm();

            stage.setTitle("Spirit B");
            stage.setScene(scene);
            stage.sizeToScene();
            stage.setResizable(true);
            stage.show();

        }
    }

    public static void main(String[] args) {

        Application.launch(App.class, args);

    }


}
```

```java
public class SurveyForm {

    private Button submitButton;
    private Button cancelButton;

    private Label firstNameLabel;
    private TextField lastNameField;
    private CheckBox confirmationBox;
    private RadioButton firstTimeButton;

    public Scene createSurveyForm() {

        BorderPane borderPane = new BorderPane();

        GridPane buttonPane = setupButtons();
        GridPane userInputPane = setupUserInput();

        borderPane.setBottom(buttonPane);
        borderPane.setCenter(userInputPane);

        return new Scene(borderPane);

    }

    GridPane setupButtons() {

        submitButton = new Button("Submit");
        cancelButton = new Button("Cancel");

        GridPane pane = new GridPane();

        pane.add(cancelButton, 0, 0); //col row
        pane.add(submitButton, 1, 0);

        return pane;
    }

    GridPane setupUserInput() {

        GridPane pane = new GridPane();

        Label firstNameLabel = new Label("First name: ");
        firstNameField = new TextField();
```