Noah Frew

njfdyf

May 10, 2019

**OO Final Project**

**UI Development:** This project was created using JavaFX. There are four .fxml documents: EraFXML.fxml, QuizFXML.fxml, GradeFXML.fxml, and AboutFXML.fxml.

**Architecture:** Model {Model.java}

Views { EraFXML.fxml, QuizFXML.fxml, GradeFXML.fxml, AboutFXML.fxml }

Controller { EraController.java, QuizFXMLController.java, GradeFXMLController.java, AboutFXMLController.java }

**Required Elements**

1. Object Oriented elements in the code:
2. Classes

**EraController.java, QuizFXMLController.java, GradeFXMLController.java, AboutFXMLController.java, Questions.java, Answers.java, etc.**

1. Subclasses

**Answers.java is a subclass of Button**

1. Abstract Class

**Switchable.java**

1. Interface

**Precambrian.java**

1. Code Elements utilized:
2. Collection Classes

**ArrayList on line 28 of Model.java and ArrayList on line 18 of Questions.java**

1. Exception Handling

**In Model.java on lines 84-102 and lines 118-141**

1. Clearly defined model:

**The Model is contained in Model.java. It holds the previous score and all the questions.**

1. Multiple Scenes and changing application states

**This project has 4 scenes: EraFXML.fxml, QuizFXML.fxml, GradeFXML.fxml, and AboutFXML.fxml. The Quiz scene changes based off which questions you’re answering, and the Grade scene changes bases on what score you got on the quiz.**

1. About Information

**The AboutFXML.fxml scene holds information about the program.**

1. Save and Load Data

**The score from the Quiz is saved in a .ser file (Model.java, lines 75-108). The score from the Quiz is loaded in from the .ser file in the Grade scene (Model.java, lines 110-143).**