CS 3330 FINAL PROJECT DOCUMENTATION

Ui Development: This project was created using JavaFX and JavaFX Scene Builder. There are three .fxml documents in the project named GoalsPage.fxml, HomePage.fxml, and WorkoutsPage.fxml

Architecture:

Models: {AbstractFitnessModel.java, GoalsPageModel.java, HomePageModel.Java, WorkoutsPageModel.java}

Views: {GoalsPage.fxml, HomePage.fxml, WorkoutsPage.fxml}

Controllers: {GoalsPageController.java, HomePageController.java, WorkoutsPageController.java}

Required Project Elements:

1. Object Oriented Elements:
   1. Classes

AbstractFitnessModel.java, Amnd7dFitnessTracker.java, GoalsPageController.java, HomePageController.java, Workout.java, WorkoutsPageController.java,

* 1. Subclasses

GoalsPageModel.java, HomePageModel.java, and WorkoutsPageModel.java are all subclasses of AbstractFitnessModel.java

This can be seen on line 12 of HomePageModel.java, line 23 of GoalsPageModel.java, or line 23 of WorkoutsPageModel.java

* 1. At least one Abstract Class

AbstractFitnessModel.java is an abstract class

Visible on line 15 of AbstractFitnessModel.java

* 1. At least one Interface

TrackerItem.java is an interface and can be seen on line 13

Of TrackerItem.java

1. Code Elements Utilized:
   1. One or more collection classes

On line 24 in both WorkoutsPageModel.java and GoalsPageModel.java an ArrayList<> is used

* 1. Exception Handling

In lines 68 to 83 of WorkoutsPageModel.java, user input is monitored and then prompted that their input must be a positive integer for sets, repetitions, and weight.

1. The application must have a clearly defined model
   1. There are 3 models in my project, GoalsPageModel.java, HomePageModel.java, and WorkoutsPageModel.java. This can also be seen when instances are made of each model in each of their corresponding controller classes.
2. The UI must use multiple scenes and at least one will have contents changed based on application state
   1. There is a TableView in the WorkoutsPageController that is updated dynamically as the user inputs data pertaining to a workout. This can be seen from lines 95-123.
   2. There are multiple scenes that can be changed while the program is running. You are able to navigate to the other two scenes from each scene while the program is running and this can be seen in lines 85-93 of WorkoutsPageController.java
3. There must be a way to access information about the program and the developer of the program.

On the home page of the program, the user is able to access both information about the programmer and the program through two buttons explicitly named as such. This can also be seen in lines 52-80 of HomePageController.java

1. The application must be able to save and load data.

The application is able to save and load data easily through the file element in the menu. This can also be seen in lines 130-142 in the WorkoutsPageController.java class.