

Group 0649:

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Walkthrough:

What is your unit test coverage?

- 1 class 100% coverage: MinesweeperBoardAndTileTest
- 1 class 0% coverage: ScoreboardActivity.class

What are the most important classes in your program?

- All the classes that manage the boards for the 3 games
 - checking if the game is solved
 - stores the current boards
 - processes a move
 - Undo a move (for certain games)
- 2 scoreboard classes (user and game centre)
 - Stores top 3 scores for each user and top 3 scores for each game across all users
- User Manager:
 - Manages users of the game centre

What design patterns did you use? What problems do each of them solve?

- Iterator
 - For Tile, MinesweeperTile, PatternTile.
 - Allows for iteration over all tile components of the board.
 - Allows easy implementation of methods like puzzleSolved.
- Observer
 - Activity classes are instance of Observer, Board classes are instances of Observable.
 - Supports MVC by allowing activity classes to act as the view, observable classes to act as the model. manager classes to act as the controller.
- MVC
 - Model - board, tile classes.
 - View - activity classes.

- Controller - manager, scoreboard classes.

How did you design your scoreboard? Where are high scores stored? How do they get displayed?

- One scoreboard for each user (UserScoreboard), one for the game centre as a whole (GameScoreboard)
- UserScoreboard
 - Stores scores with a hashmap that maps game names to the user's top 3 scores for that game
 - There is a method that returns the user and score to be displayed. The activity class sets text fields by calling the method.
- GameScoreboard
 - Store scores with a hashmap that maps game names to the top 3 scores for that game
 - There is a method that returns the user and score to be displayed. The activity class sets text fields by calling the method.