Checkers plus was inspired by the simple goal of constructing a fun game with experimenting with additional entertaining features. As it name suggests, checkers plus is checkers app designed from scratch and includes additional quirks and options. The app’s main menu consists of 3 buttons that all link to different activities. The play against player activity initiates a local game of checkers on the device. Play against computer initiates a game in which the opposing side is controlled by a basic AI. The options menu allows customization of the other two activities.

The game-space consists of 3 objects, each interacting with ne another to create the games parameters and rules. The checker piece is an object that consists of several Boolean parameters that define its team, whether it’s a king and a method that sets it to a king. The board is a 2-dimensional array of the square object. Most the games logic is implemented in the square class. Each square has an x and y coordinate and a Boolean that identifies whether it holds a checker or is vacant. Much of the code is triggered by an onTouch() event. If a checker is clicked, a recursive check is launched that identifies neighboring squares, and determines all possible moves. If the player clicks another piece, the check is relaunched from the currently selected piece. If a piece is currently selected, and a square that is defined as a valid move is clicked, the piece moves according and the turn changes. The code was designed to function in conjunction with the customizable options that

To add a narrative touch to the game, contextual flavor texts are added that have a chance of triggering upon certain events. For example, there are currently quotes of lament on the event that a checker piece is taken, or when a game concludes. These short pop ups are toasts that access an array of strings that are defined in the xml. The array is organized by event, where the quotes for each event are within a certain range in the array. The makeToast() method takes an integer that idecates the range of quotes that it will randomly select and display upon the event trigger. The metod is called

The options menu activity allows the user to change the parameters of the game and its objects. Currently the options menu defines and changes global variables that are used in the construction of the game activities.

One of the greatest challenges was ensuring that the games logic could account for the numerous possible edge cases in the games runtime as well as adapt to parameters changed in the options.