Executive Summary

1 Summary

This application basically provides a Gomoku game platform for two or even more players. Two players can start a quick game in common mode, and can save a game whenever before a game ends. Players can continue to play a saved game when they come back the app. The app also supported a mode: Party Mode, for more than two players, where players can play many games (any two players for a game) and compete with each other with scores (3 for a win, 1 for a tie and 0 for a loss). For a game, the app support sound effect for a move and background music whose volume can adjusted by players. It also supports regrets of moves (with maximum step 2) and time limit (15s, 30s or no limit) for each turn. (AI would automatically make a move for players when time limit reached)

2 Technical Details

1. Uses **UIStoryboardSegue** (with **UIButton** action) and **NavigationController** to manage the layout of each view.
2. Uses **User Default** to manipulate global variables for the items in game settings, every time the variables are used in the Board View, they should be reloaded from the global settings.
3. Overrides **prepare** (for UIStoryboardSegue) function to pass data from segue in the views in the "Player" group.
4. Uses **unwindSegue** to track whether the Settings View form Board View is disappearing.
5. Shows alerts(**UIAlertController** and **UIAlertAction**) in many situations when players go to another view or when a game is ended.
6. Uses **UITapGestureRecognizer** to track a move in a turn.
7. Uses **Timer.scheduledTimer** to show and run the time limit when it is set.