

AIMS² Summer 2013

Designing with Finite State Automata
Computer Science Department

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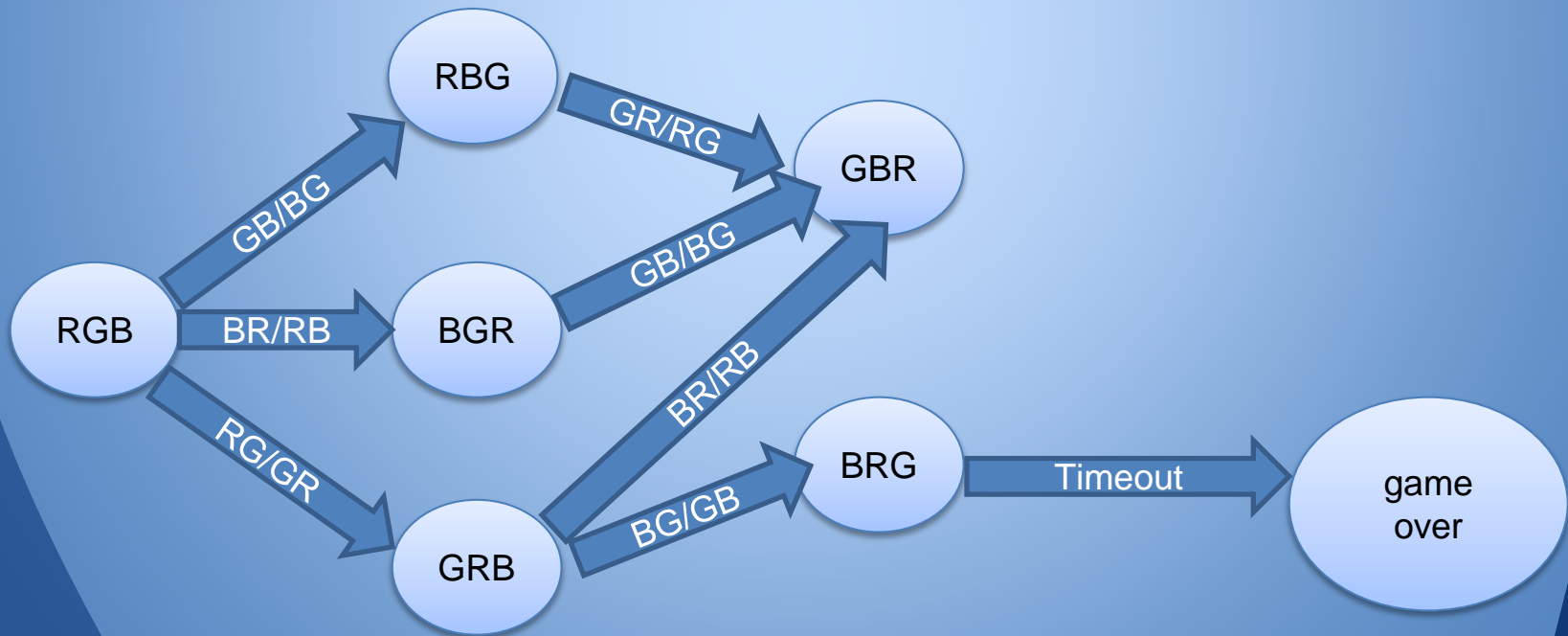
Jean Villanueva

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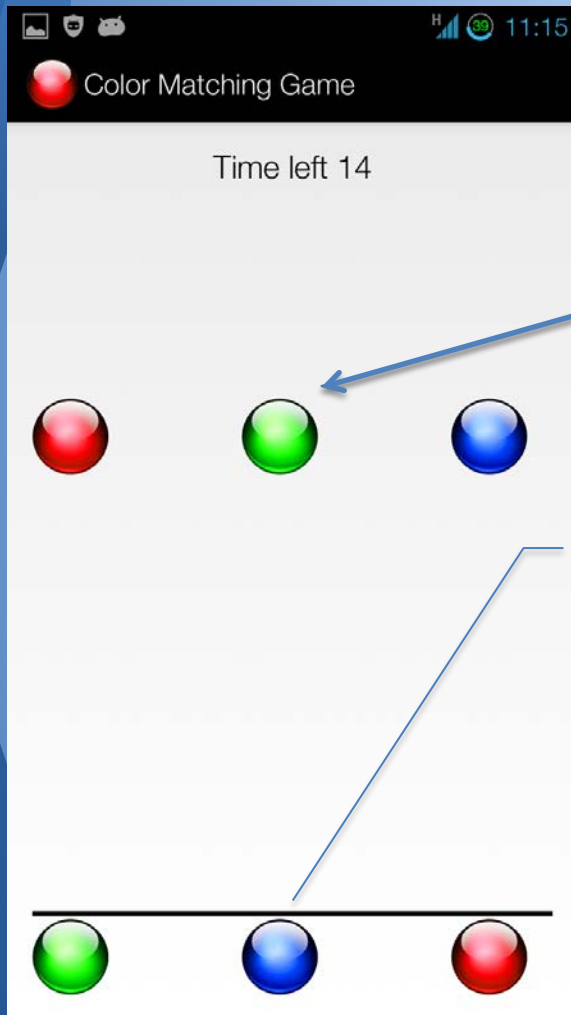
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Objective

- To develop an Android game based on a FSA(Finite State Automata).



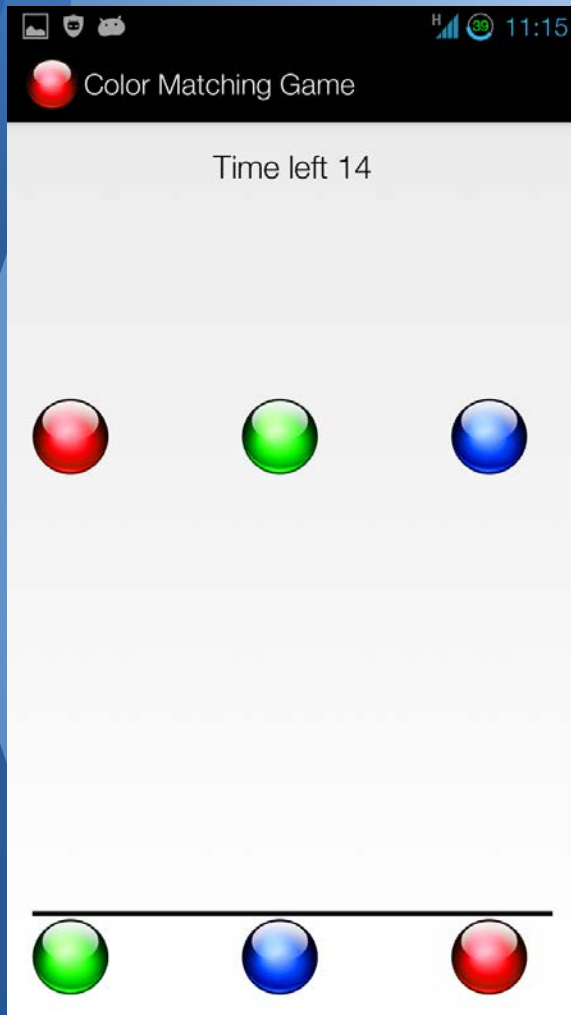
Description of Basic Game



3 colored balls travel from the top of the screen to the bottom within a set amount of time.

At the bottom, 3 other colored balls in a random sequence.

Description of Basic Game



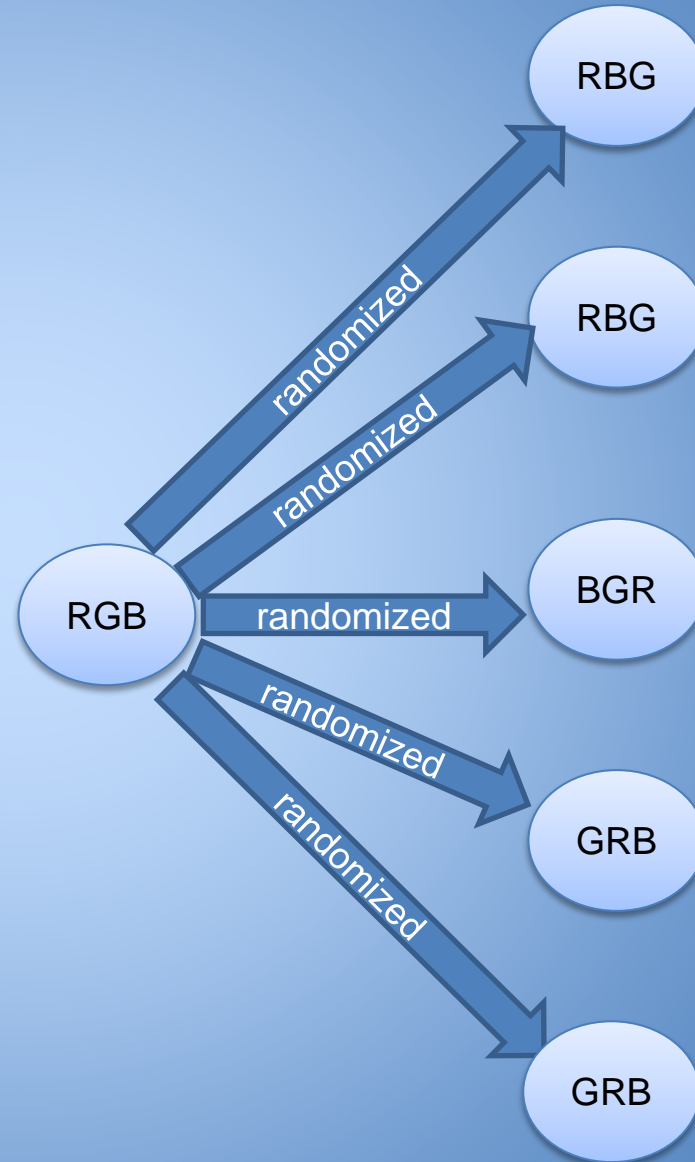
The objective is to match the sequence of top balls to the bottom balls.

Tapping two of the top balls traveling downward to swap their locations.

The sequence must be matched before the balls reach the bottom of the screen and the timer has run out.

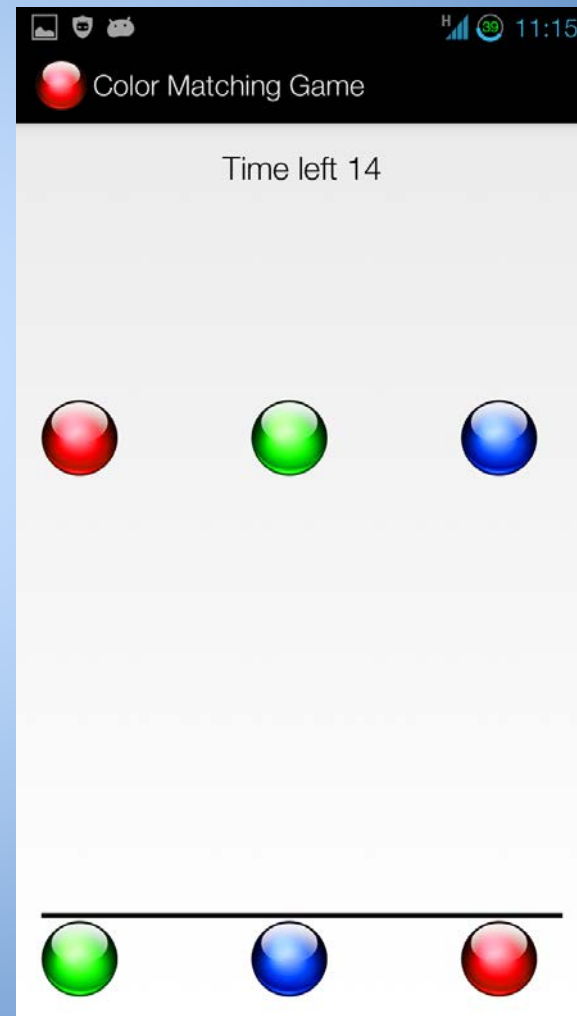
Randomizer

- All games developed for this application make use of a class created called Randomizer. Simply put the Randomizer class generates the random sequence of colored balls that appear at the final state of whichever game mode is being played. It does this by putting all possible colored balls into a type of list and then uses an algorithm to select which one would come first, second, third or fourth.



Randomizer Continued

- It has safeguards built in so that the game will never start off with the winning sequence. It also has safeguards to prevent the same color from being selected for more than one position in the sequence. be reset back to 0 in the preferences menu from the main screen.



Tools Used

- Android Developer Tools
- Eclipse
- Github
- Android phones

Skills Learned

- Teamwork
- Communication
- Designing a finite state automata
- Android
- Github

CSUN and GCC Collaborative Experience



Reference

- <http://www.youtube.com/thenewboston>
- <http://developer.android.com/index.html>
- Professor Melara
- Chan Nguyen
- Viet Hoang