Alice 3 Panda Pattern

Description
Randomized patterns of colors are shown to the user, and the user is tasked with reproducing the pattern. With each correct entry, the pattern gets longer, and the game gets more difficult.

Major Structures
Pattern Demonstration – The squares are billboards set to a faint color originally. This faint color is stored as a variable so that it can be reset. When a pattern is being shown, the billboard’s color is changed to a more intense color and then changed back to its original faint color.

Pattern Storage – The game builds on the same pattern with each iteration of gameplay. The pattern itself is stored within a list, represented as the numbers 0-3, where each number corresponds to one of the colored billboards. The user’s input is also stored in a different list through a click event listener. This user list is reset each turn.

Pattern generation – In each turn, a random number is generated between 0 (inclusive) and 4 (exclusive). This number is added to the pattern list that keeps track of the game’s pattern. Thus, every time the game is played, a random pattern is shown and built upon.

Gameplay - The gameplay functions within a while loop. There is a Boolean variable that represents whether or not the game is over. The while loop operates while the variable is still false. Once the user inputs an incorrect pattern, the variable is set to true and the game stops.

Scoreboard – A text model is initialized in the world with a value of 0. With every iteration in the while loop, 1 is added to the score.