Homework 7

In this homework you will complete the missing part in the Board.java code (Board class). Test code in the main is given. Below is the output of given test case:

Input	S1	S2	S3	S4	S5	S6	S7
`#....`	`#....`	`#....`	`#....`	`#....`	`#....`	`##...`	`#....`
`.#...`	`##...`	`.#...`	`.##..`	`.#...`	`.#...`	`.#...`	`.#...`
`.....`	`.....`	`.....`	`.....`	`.#...`	`.....`	`.....`	`.....`
`.#...`	`.#...`	`.#...`	`.#...`	`.#...`	`##...`	`.#...`	`.##..`
`.....`	`.....`	`.#...`	`.....`	`.....`	`.....`	`.....`	`.....`

As you can see, pieces can clone themselves to their neighbors. So, input is the first generation where the next generation contains boards with cloned pieces. These boards are known as the successors which is given by `public Collection<Board> getSuccessors()` method in the Board class. Note that there are no duplicates in the successors.