

## Truecaller for Developers- Assignment

A pawn can move on 10x10 chequerboard horizontally, vertically and diagonally by these rules:

- 1) 3 tiles moving North (N), West (W), South (S) and East (E)
- 2) 2 tiles moving NE, SE, SW and NW
- 3) Moves are only allowed if the ending tile exists on the board
- 4) Starting from initial position, the pawn can visit each cell only once

On the following picture, you can see the initial position in black, the legal next positions in dark grey and the illegal ones in red.

	0	1	2	3	4	5	6	7	8	9
0			N							
1	NW				NE					
2										
3	W					E				
4										
5	SW				SE					
6			S							
7										
8										
9										

Write a program that finds at least one path for the pawn to visit all tiles on the board following the above rules, starting from any tile.

- Use the language/technology of your choice. At Truecaller Java and Scala are the main languages, so consider these as a preferred choice.
- Add notes to describe your approach and/or anything else to clarify the reasoning that led you to the solution.
- Add instructions to run your program.
- Add all the relevant files (code, instructions and notes, no binaries!) to a compressed folder and use the following convention <surname>-<name>\_platform-assignment-<test\_number>.<ext> using lower case. Es. John Doe, submitting a solution for this test assignment (the number is in the title) in tgz format, would send doe-john\_platform-assignment-2.tgz

Approach this task as if you would be already an employee at Truecaller and this would be part of a real project. The output of this assignment will be the base for evaluation and will be followed by a technical interview, if qualified.

We sincerely hope to see you as part of our team.

The TC for Developers Engineering Team