

Tree Specification

- Each cell in the matrix contains a digit (0, 1)
 - 0 represents no road
 - 1 represent road
 - Each cell can only be visited at most once
- The starting position represents the root
 - (0, 0)
 - Root must be 1, i.e. $(0, 0) = 1$
- Each node in the tree can have up to 4 children: Left, Down, Right, Up