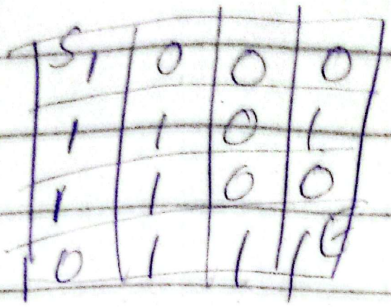
Rat in a maze



Ignore 0 path

Find the available path to reach from (S → E)

```
helper(matrix, r, c, path, ans){
    n = matrix.size()
    if(r<0||c<0||r>=n||
       c>=n||matrix[r][c]
       ==0||
       matrix[r][c]==-1)
        return;
    if(r==n-1 && c==n-1){
        ans.pushback(path)
        return
    }
    matrix[r][c] = -1
    helper(matrix, r+1, c, path+'D',
           ans)
    helper(matrix, r-1, c, path+'U'+ans)
    helper(matrix, r, c-1, path+'L'+ans)
    helper(matrix, r, c+1, path+'R'+ans)
    matrix[r][c] = 1
```

```
findpath(matrix){
    int n = matrix.size()
    ans
    path = ""
    helper(mat, 0, 0, path,
           ans);
    return ans;
```

T.C $O(4^{n^2})$

S.C $O(1)$