[Write on your own sheets of paper. On each sheet, on the front, write in the top right corner your **lastname, firstname(s), group id and (C)**. Leave a 2cm margin at the left on the front page / at the right on the back for stapling. Open book. Time: 90 minutes]

Remoty the Robot and the Maze

A remote controlled Robot, named `Remoty`, is to pass through a maze. The maze if composed of walls, doors, out of which one is the start door and another a finish door. The maze configuration is encoded in file `maze.txt` as lines of 'W' characters representing wall bricks with empty space represented by blanks.
The robot understands the commands (letter case is irrelevant):

a. Look direction, coded with an `'l'`, makes the robot answer with 'W' (wall) or 'D' (door), depending on what is sees on its left ('L'), right ('R'), front ('F') or back ('B');
b. Turn direction, coded `'t'`, which causes the robot to turn 90^o to the left ('L') or right ('R');
c. Step, coded with an `'s'`, which makes the robot go one cell in its current direction. If it cannot move, then the command has no effect.

You should simulate the movement of the robot through a maze performing the necessary checks on the commands given to the robot via `System.in`. After each command you should print a maze snapshot, using the same representation as the one in the input file.
Robot commands are implemented as one or two letter characters.

Example `maze.txt`. Robot is marked with letter `R` (all corridors/walls/doors are 1 character wide):

```
WWWWWWWWWWWWWWWWWWWWWWWWWWWWWW
          W                   W
WWWWWWWWW W WWWWWWWWWWWWWWWWW W
W        W W W               W W
W        W W W W           W W W
W        W W W WWWWWWWWWWWW W W
W        W   W             W   W
WWWWWWWWWWWWWRWWWWWWWWWWWWWWWW
```

Example commands:

```
L f        // would return 'D'
s
l f        // would return 'D'
s
l F        // would return 'D'
s
L f        // would return 'D'
s
l f        // would return 'W'
t r
l L        // would return 'W'
s
```

After these commands the position of the robot in the maze would be:

```
WWWWWWWWWWWWWWWWWWWWWWWWWWWWWW
          W                   W
WWWWWWWWW W WWWWWWWWWWWWWWWWW W
W        W W W R             W W
W        W W W W           W W W
W        W W W WWWWWWWWWWWW W W
W        W   W             W   W
WWWWWWWWWWWWW WWWWWWWWWWWWWWWW
```