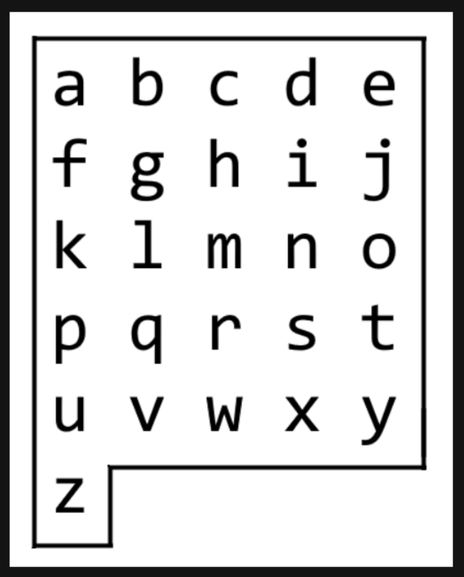
1138. Alphabet Board Path

Description

On an alphabet board, we start at position `(0, 0)`, corresponding to character `board[0][0]`.

Here, `board = ["abcde", "fghij", "klmno", "pqrst", "uvwxy", "z"]`, as shown in the diagram below.



We may make the following moves:

- `'U'` moves our position up one row, if the position exists on the board;
- `'D'` moves our position down one row, if the position exists on the board;
- `'L'` moves our position left one column, if the position exists on the board;
- `'R'` moves our position right one column, if the position exists on the board;
- `'!'` adds the character `board[r][c]` at our current position `(r, c)` to the answer.

(Here, the only positions that exist on the board are positions with letters on them.)

Return a sequence of moves that makes our answer equal to `target` in the minimum number of moves. You may return any path that does so.

Example 1:

```
Input: target = "leet"
Output: "DDR!UURRR!!DDD!"
```

Example 2:

```
Input: target = "code"
Output: "RR!DDRR!UUL!R!"
```

Constraints:

- `1 <= target.length <= 100`
- `target` consists only of English lowercase letters.