```
class Solution {
  public boolean exist(char[][] board, String word) {
     for (int i = 0; i < board.length; i++) {
        for (int j = 0; j < board[0].length; j++) {
            if (dfs(board, i, j, word, 0))
              return true;
        }
     return false;
  public boolean dfs(char[][] board, int r, int c, String word, int idx) {
     if (word.length() == idx)
        return true;
     if (r < 0 \parallel r >= board.length \parallel c < 0 \parallel c >= board[0].length)
        return false;
     char ch = board[r][c];
     if (ch != word.charAt(idx))
        return false;
     board[r][c] = ' ';
     boolean b = dfs(board, r+1, c, word, idx+1) \parallel
              dfs(board, r-1, c, word, idx+1) |
              dfs(board, r, c+1, word, idx+1)
               dfs(board, r, c-1, word, idx+1);
     board[r][c] = ch;
     return b;
  }
}
```