Yusuf Fawzy Elnady

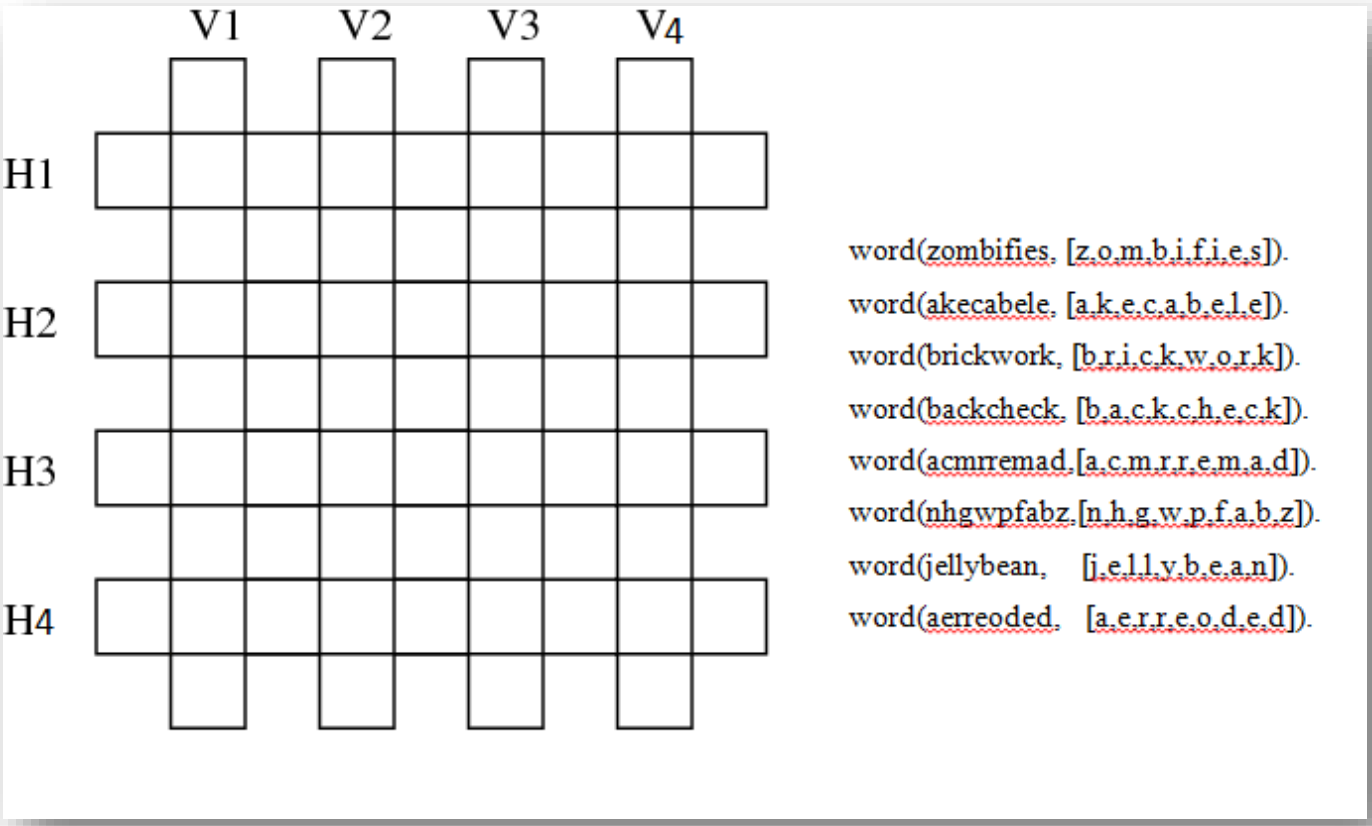
Cross Word Puzzle (Backtracking – Uninformed Search)

Summary:

It is difficult to **fill the cells** in this **puzzle** with the **given input**, imagine that you started to fill the table with the first word [**zombifies**] in **H1** & [**akecabele**] in **H2** & [**brickwork**] in **H3** & [**backcheck**] in **H4** after that you will find that **V1 & V2 & V3 & V4 can't be filled** with any of the remaining words. The strategy is to **backtrack** and try **another path** to fill words in all cells in (H & V) and return all valid solutions. If not reached to the solution, then it prints No solution.

This tricky game is solved here using the **Uninformed Search Technique**.

The program is written in Prolog.



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1- Input

8 words:

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word([z,o,m,b,i,f,i,e,s]).

word([a,k,e,c,a,b,e,l,e]).

word([b,r,i,c,k,w,o,r,k]).

word([b,a,c,k,c,h,e,c,k]).

word([a,c,m,r,r,e,m,a,d]).

word([n,h,g,w,p,f,a,b,z]).

word([j,e,l,l,y,b,e,a,n]).

word([e,a,r,r,e,o,d,e,d]).

2-Output: