Objectives:

Create a hash table.

Use the hash table to solve a word puzzle.

Description:

A grid consisting of letters is to be checked against a dictionary of words to see if the grid contains any of the words.

The user can input a value for the rows and columns of the grid and the program will create a grid of random characters.

The program will read in a dictionary file (provided) and use an algorithm to solve the word puzzle.

The user should also have the option of using the following enhancement: When reading the input file of words, store each prefix of the word as well. For example, if the word is "apple", store "a", "ap", "app", "appl", "apple". In the algorithm, if a prefix is not found, the rest of this string can be treated as "not found". For example, if the string is "apbum", and after checking and finding "a" and "ap" ; I find that "apb" is not in my dictionary, then there is no point in checking further in this direction. Note you will need to indicate for each entry whether it is a word or only a prefix of a word.

Have the program output the elapsed time in both cases.