R·I·T	**Rochester Institute of Technology** **Golisano College of Computing and Information Sciences** **Department of Information Sciences & Technology**

ISTE-222 Computational Problem Solving in the Information Domain III
Hashmap – Homework – Programming

Purpose: To gain experience and become comfortable using hash maps for a complex system.

Due: Friday end of Week 12

Assignment: Create hash maps that are linked together based on words in a dictionary. The key in each table is a letter with a value referencing another hash map. When the first letter of an invalid word is entered indicate this is not a valid word.

Approach: You have a wide variety of options for how this program reacts to user input. Some examples are:

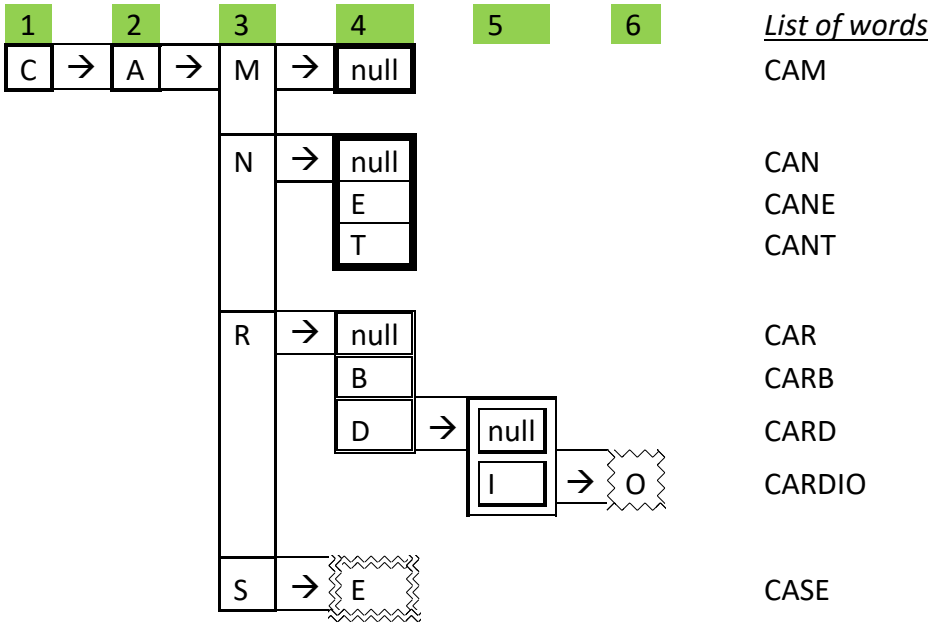
When a letter is typed, but is not a complete word:

- Show the next letter(s) available.
- Show a list of possible words that could be entered, aka: intellisense
- Show a list of words starting with shortest or longest length first

When a letter is typed that is a word, and could be part of another word:

- Indicate this is a word, and is part of other words, as described above

Numbered are the hash map levels. The following diagram shows 9 separate hash maps.



Example:
User types in the letters: C A R
As one possible implementation: You could say CAR is a word, CAR is the beginning of other words, showing the next letter(s), show all the other words.