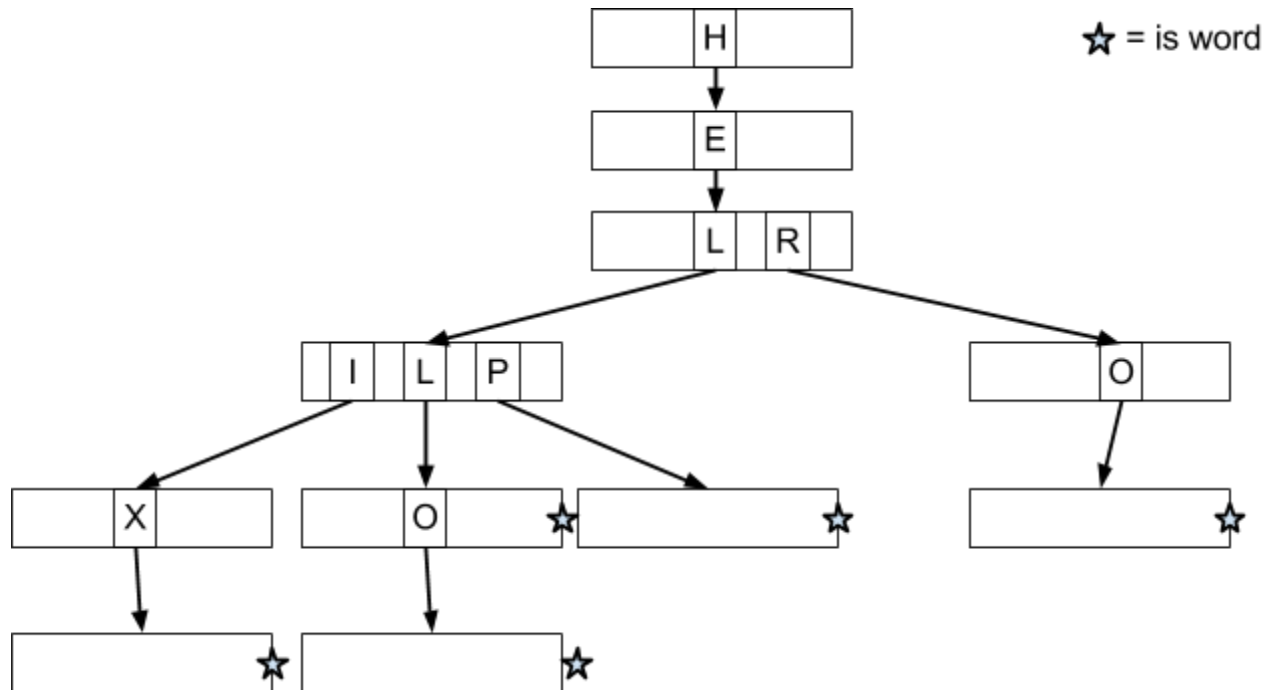## Tries and PATRICIA Tries - CS 240 Tutorial - March 20th 2013

Tries:

Draw a trie after the following words have been inserted: hello, hero, help, hell, helix.
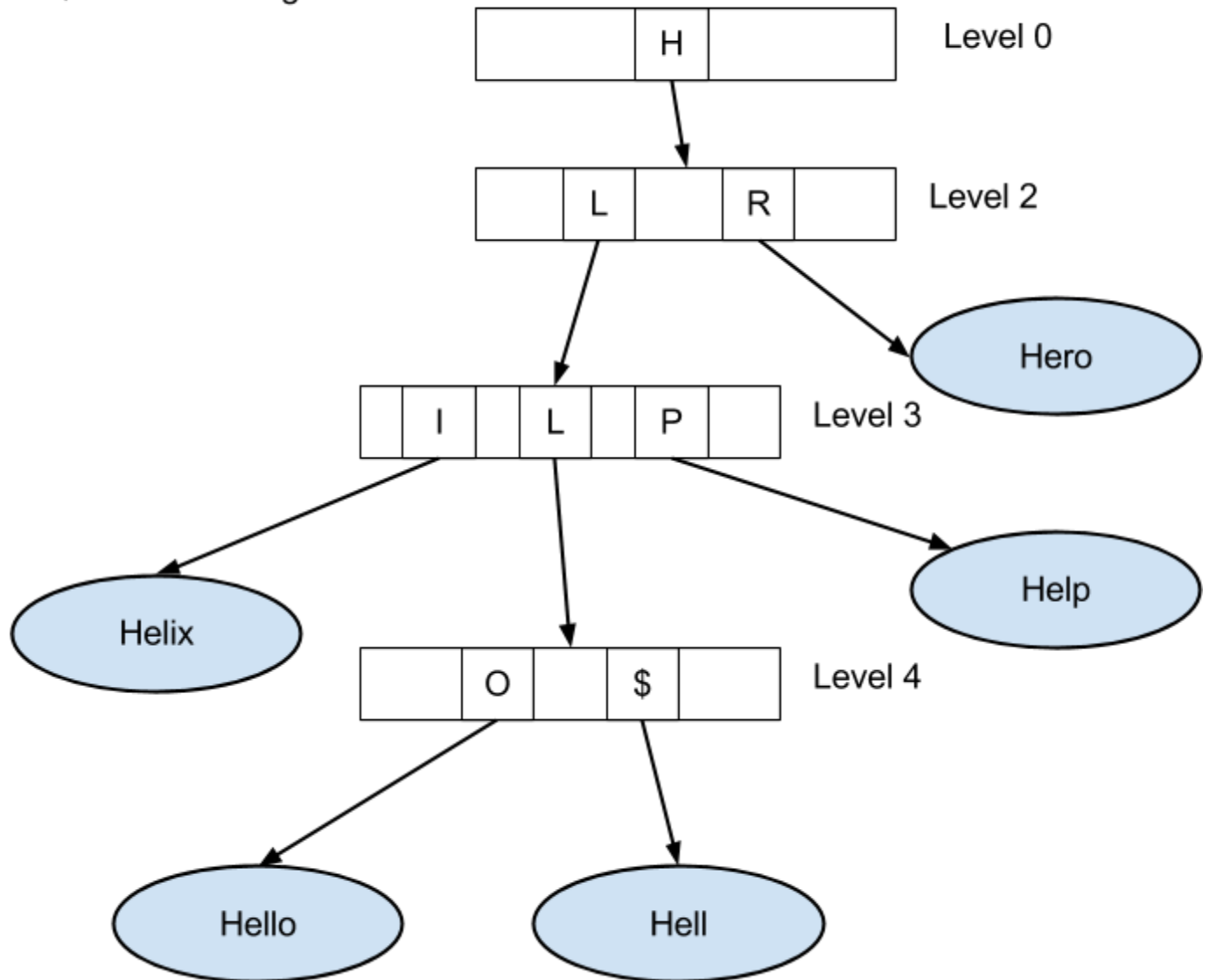

Show the students the two options for deletion:
- 1. Lazy: just remove the star
- 2. Actually remove the word from the trie.

PATRICIA Tries:

Draw a PATRICIA trie after the following words have been inserted:: hello, hero, help, hell, helix.

$ = end of string

| | H | | | Level 0 |

| | L | | R | | Level 2 |

Hero

| | I | | L | | P | | Level 3 |

Helix

Help

| | O | | $ | | Level 4 |

Hello

Hell

Inserting "Hinge" into the Patricia Trie above we have to add another node. The way to do this is to grab a leaf and find the first place it differs, then simply add a node at that level.

Deleting "Hell" Requires removing the level 4 node and having the "L" pointer from level 3 point directly to Hello.