

## Word Ladder

BFS Method.

List = ["hot", "dot", "dog",  
"lot", "log", "cog"]

beginWord = hit

end word = dog

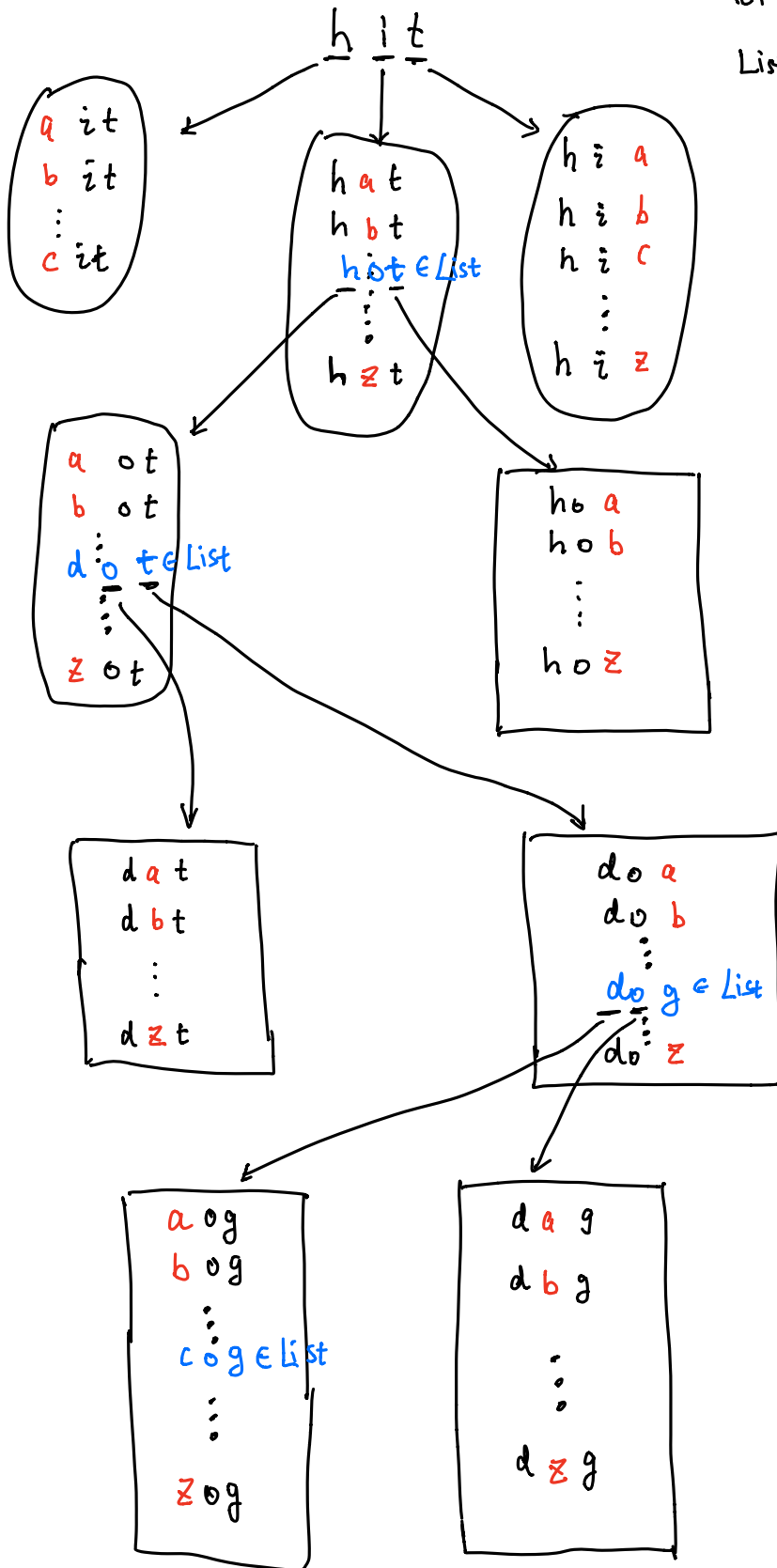
Level 1

Level 2

Level 3

Level 4:

Level 5:



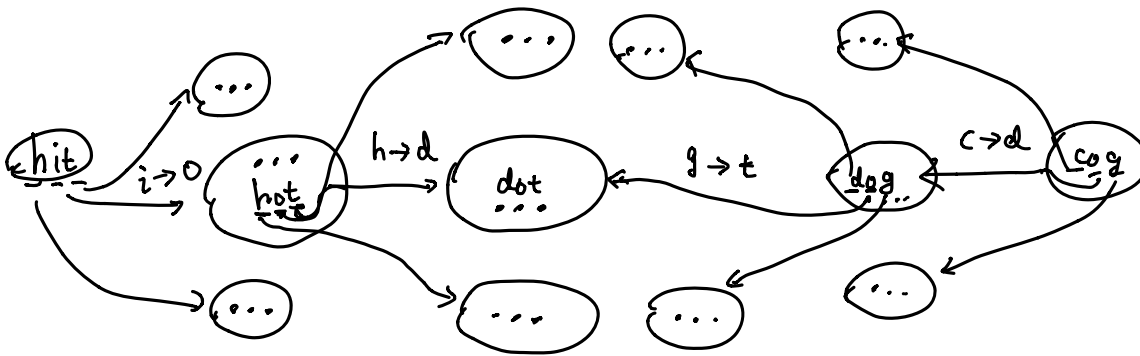
⇒ hit → hot → dot → dog → cog length 5.

## Bidirectional Method:

List = ["hot", "dot", "dog",  
"lot", "log", "cog"]

using two hash sets, do BFS bidirectionally.

beginWord = hit  
end word = dog



## Word Ladder II

Same as Word Ladder, but  
Need to return all sequence !!!

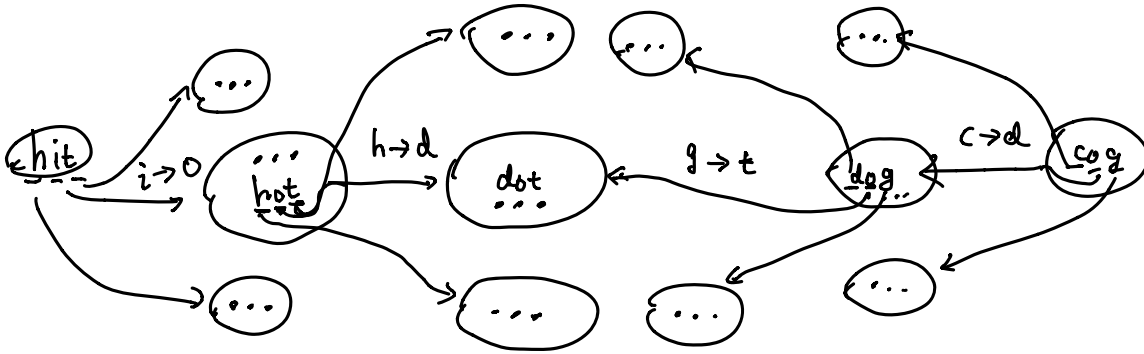
Bidirectional Method:

List = ["hot", "dot", "dog",  
"lot", "log", "cog"]

using two hash sets, do BFS bidirectionally.

beginWord = hit

end word = dog



Idea: ① Do the BFS steps as in Word Ladder, but use a hashmap to record the next words of each word.

② Do DFS to add the correct sequences into the final result list.