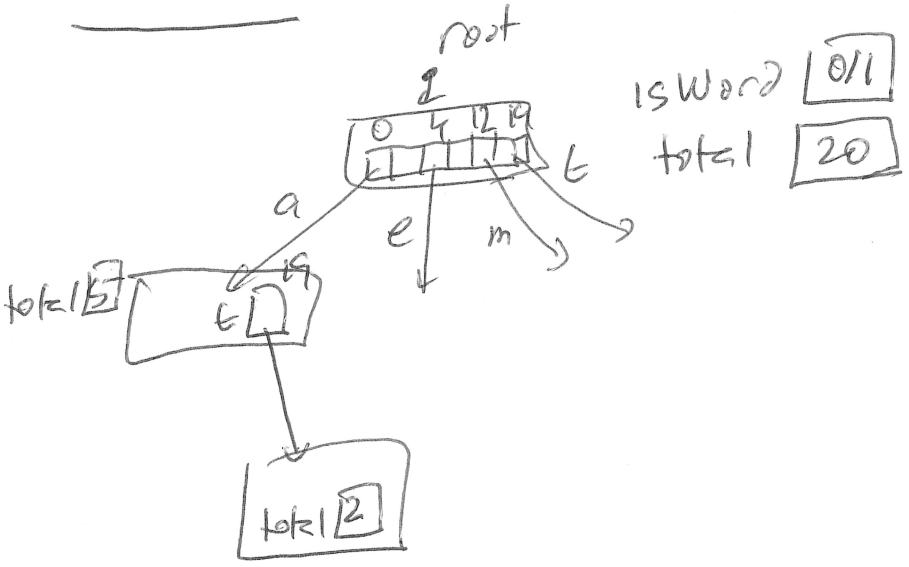
Tries

COP4516 1/30/2024



If we care suffixes

(a) reverse every dictionary word

(b) reverse suffix we care about

(c) the reverse suffixes are prefixes in the new trie of reversed words

coming → gnimoc
going → gniog
reading → gnidaer

] ending start gni in rev trie

(1) count all words start w/some prefix

(2) Count all words that can be formed scrabble tiles

(3) Which word has the most prefixes that are also words?

Problem #1

Just iterate down tree following letters

key syntax is

`next[word[i] - 'a']`

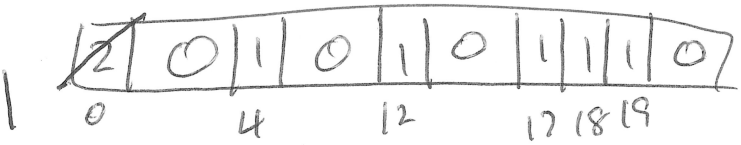
- `next` ↑ array struct
- `word[i] - 'a'` — Ascii values are consecutive

Problem 2 Scrabble

@ IM IS

2 As, 1E, 1R, 1T,

freq 26



In my recursion update freq array

`freq[i-'a']--;` when I go down path i

`freq[i-'a']++;` rec call finishes

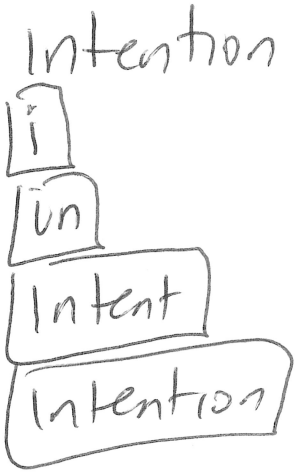
① Skip if NULL

② Skip if no tile

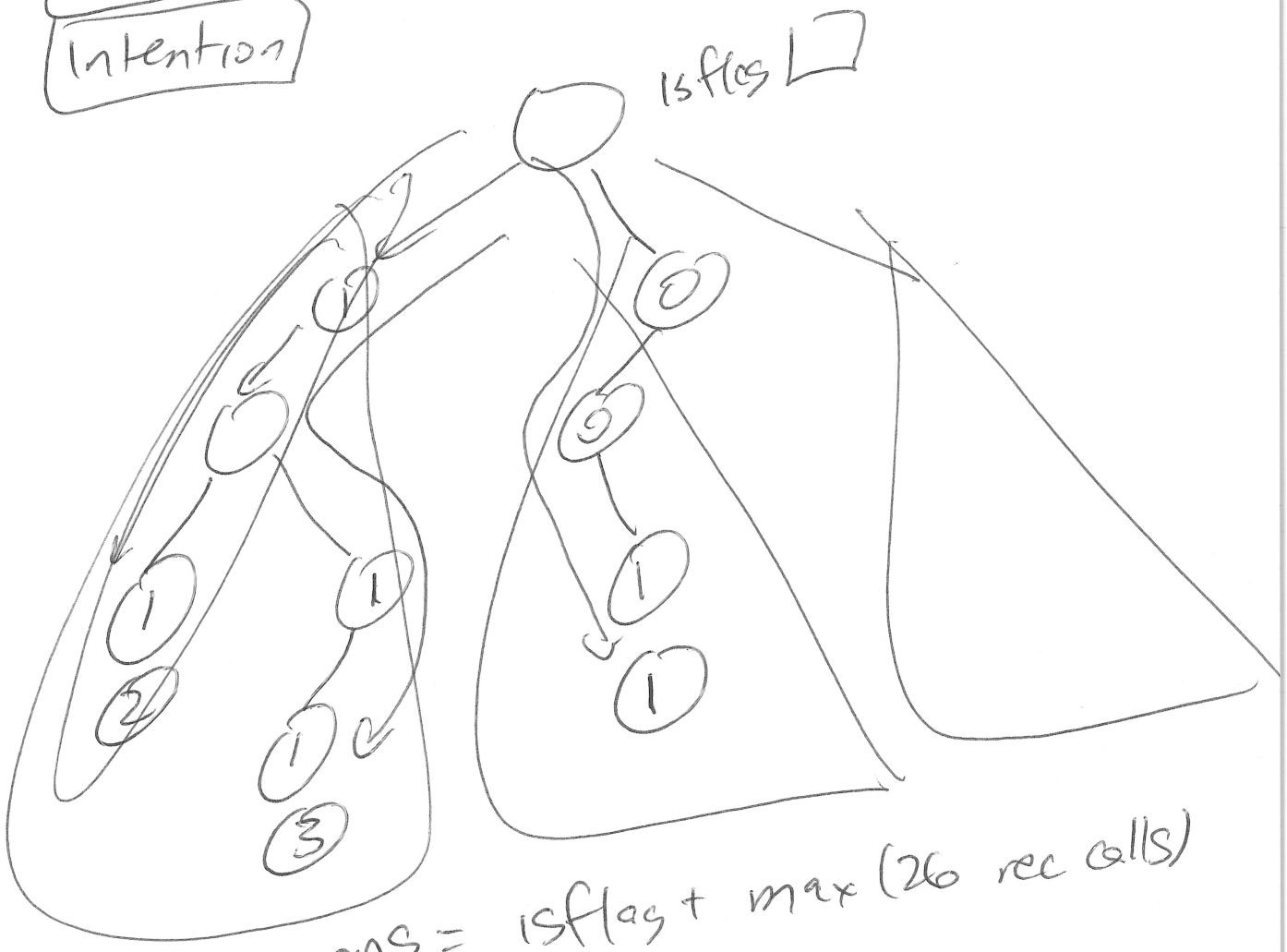
Need to keep track of if I've used a tile

`rest = rec(root->next[i])`

Problem #3



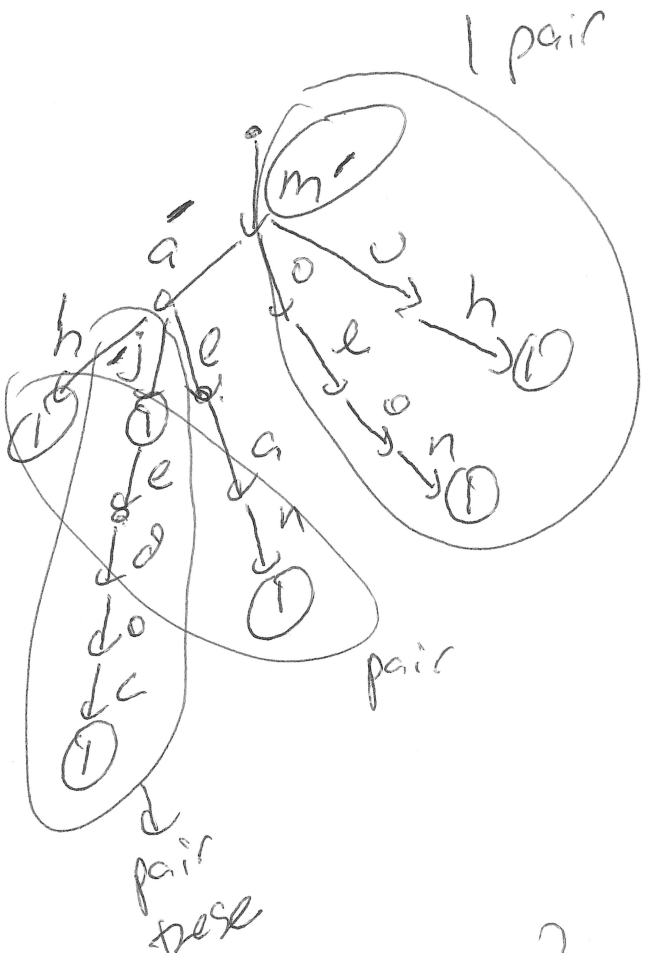
4 prefixes of Intention are words



ans = isflag + max (26 rec calls)

Alien Rhyme

CODEJÁM
JÁM
HÁM
NALÁM
HUM-
NOLOM-



nW == 2
add pair

At m
recursively ans trees. (Add)
What about accent @ m?

(if 2 unused words (or more) rec call, then accent this letter