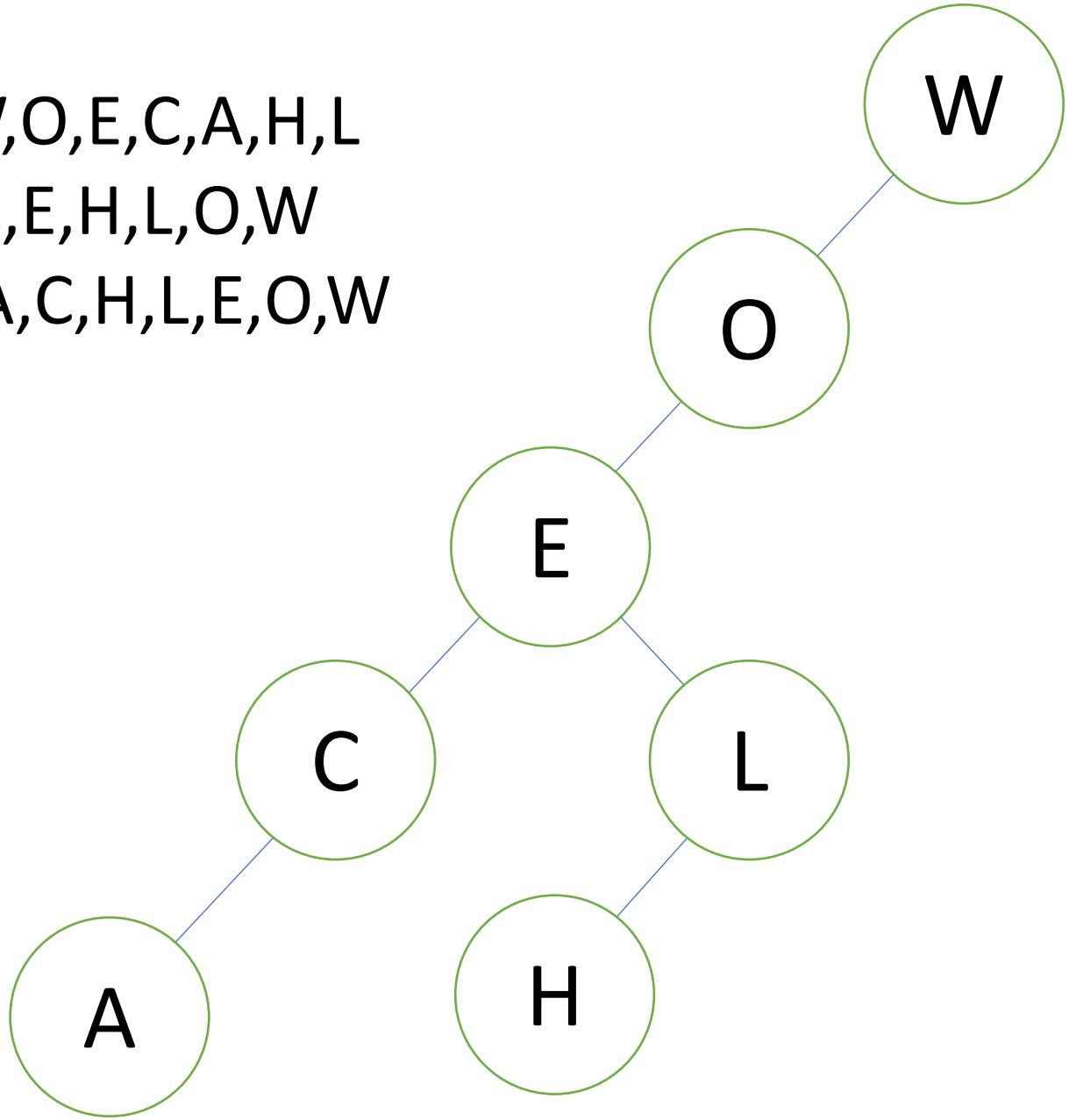
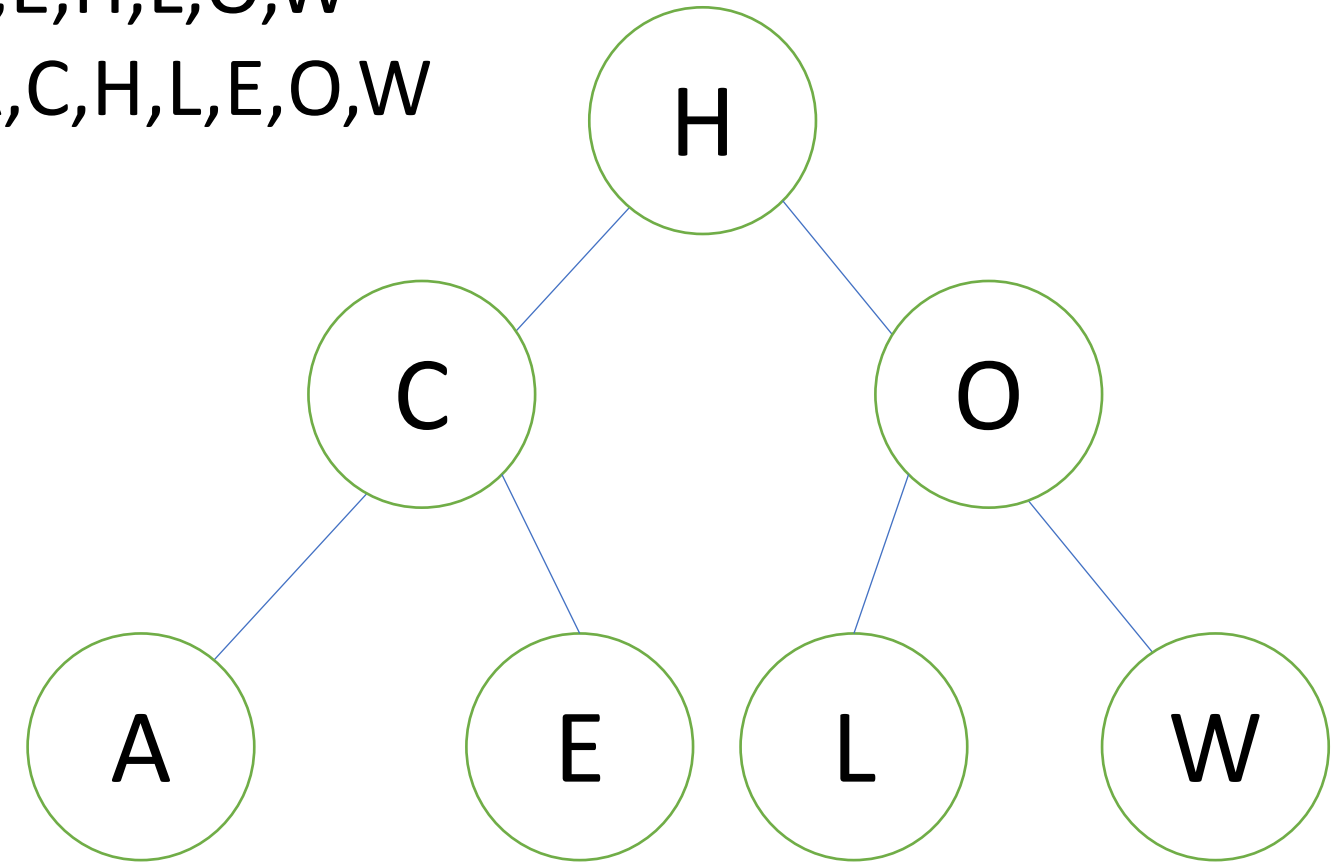
PreOrder: W,O,E,C,A,H,L
InOrder: A,C,E,H,L,O,W
PostOrder: A,C,H,L,E,O,W



PreOrder: W,O,E,C,A,H,L

InOrder: A,C,E,H,L,O,W

PostOrder: A,C,H,L,E,O,W



Q2

- 4711 BEST, 4713 SECOND AND 2014 NOT GOOD AND 4712 IS VERY BAD.

- you want the array size to be prime to minimize the number of collisions. Because you take the modulo of the hashcode with the array size, if the array size is prime then you only get one inverse, which minimizes collision. but we don't have any primes in the options, so we take the ones that have the least common factors

Timings

- Q4) Theoretical: ST: N. inserting they are the same
- Binary Search tree: N. inserting they are the same
- Black red tree: 2log(N)

- Practical values: ST: 0.005 seconds for 10982
- Binary search tree: 0.005 seconds for 10982 words
- Black red trees: 0.005 seconds