EL9343 Homework 6

(Due Mar 9th, 2021)

All problem/exercise numbers are for the third edition of CLRS text book

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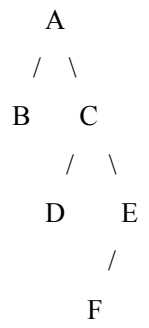
1. Demonstrate what happens when we insert the keys 26, 10, 20, 39, 2, 35, 19, 8, 22, 5 into a hash table with collisions resolved by chaining. Let the table have 9 slots, and let the hash function be h(k) = k mod 9.
2. Exercise 11.2-1 in CLRS Textbook.
3. For the set of {2, 3, 8, 10, 16, 17, 22} of keys, draw binary search trees of heights 2, 3, 4, 5, and 6.
4. For the following binary search tree, show the result of following operations (Please follow the algorithm from the lecture/textbook):



   a) Delete B;
   b) Delete C from the result of a);
   c) Delete A from the result of b);
   d) Delete A from the original tree.