Data *Structures*
Homework 3

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Teaching, Training and Coaching since more than a decade!

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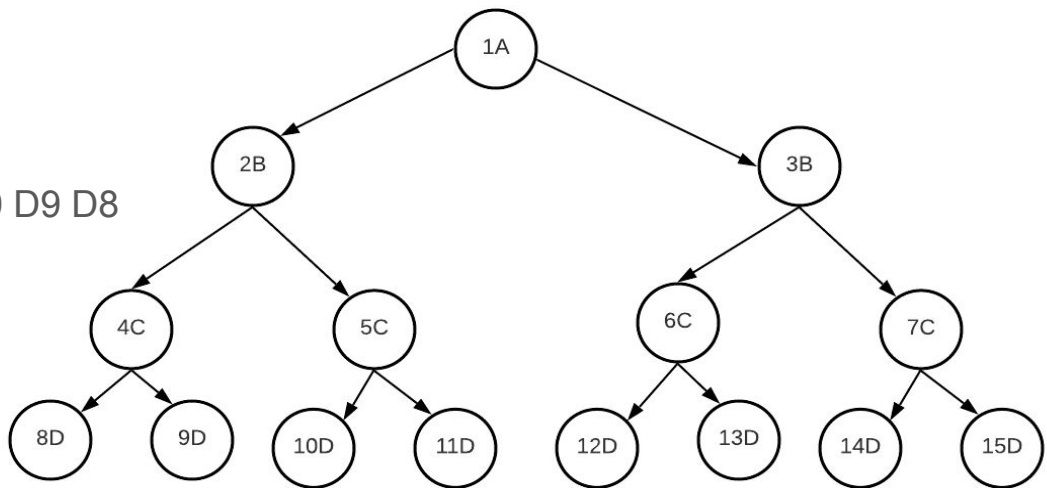Ex-(Software Engineer / ICPC World Finalist)

Problem #1: Recursive Level Order Traversal

- void level_order_traversal_recursive()
- How can we still get the answer based on a recursive way instead of the queue?
- Tip it is slower.
- Compute time complexity

Problem #2: Level Order Spiral

- void level_order_traversal_spiral()
- In this one, we print the tree in a spiral way
- Output
  - Level 0: A1
  - Level 1: B3 B2
  - Level 2: C4 C5 C6 C7
  - Level 3: D15 D14 D13 D12 D11 D10 D9 D8
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- Observe
  - **Even** levels are **reversed**

Problem #3: Is complete Binary Tree

- bool is_complete()
- The function returns tree if the tree is a complete one
- Make sure to test the different cases

"Acquire knowledge and impart it to the people."

"Seek knowledge from the Cradle to the Grave."