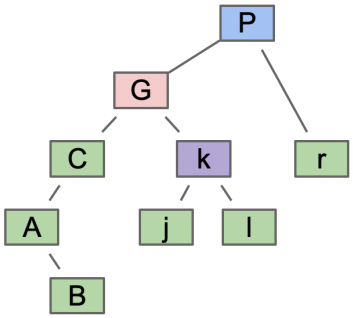
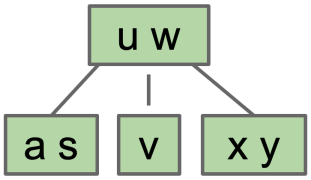
CS62: Fall 2025 | Lecture #17 (Rotation & LLRB Trees) worksheet | Prof. Li

1. What does the tree look like after calling rotateRight(P)?



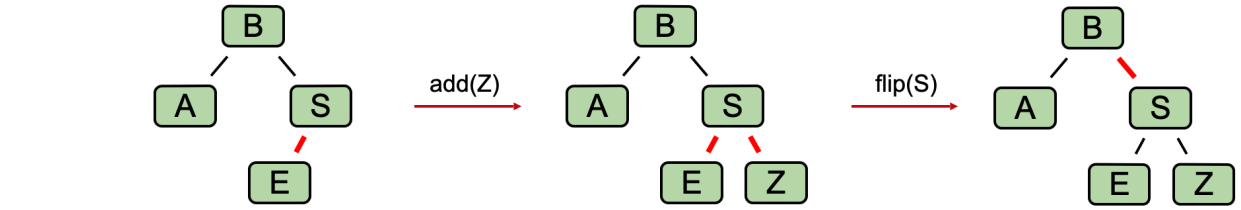
2. Give a sequence of rotation operations that balances the tree on the left.

3. Draw the LLRB corresponding to the 2-3 tree shown below.

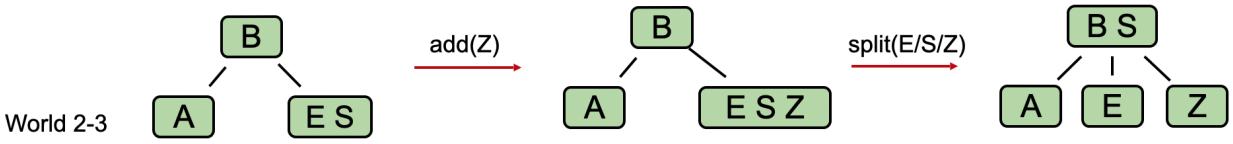


4. Inserting Z gives us a temporary 4 node. To fix it, we color flip. But this yields an invalid tree.

What is the violation that has occurred? How can we fix it? Draw the correct LLRB.



LLRB World



World 2-3