

## HW4 - Section 6.3 - Question 7a

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### **Section 6.3 - Question 7a**

Insert C,O,M,P,U,T,I,N,G into a 2-3 tree (pictures below)

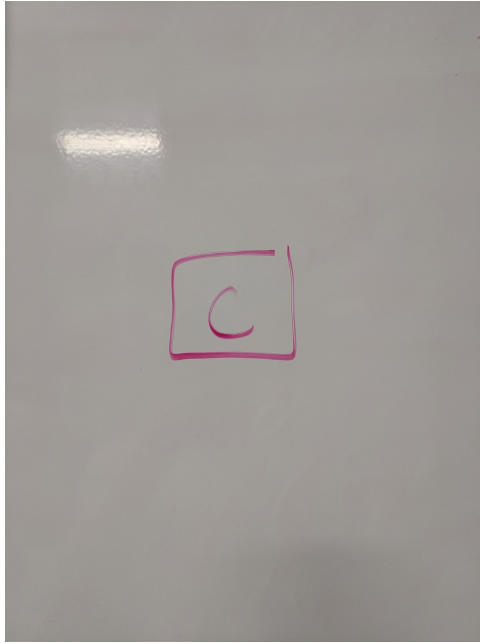


Figure 1: Insert C

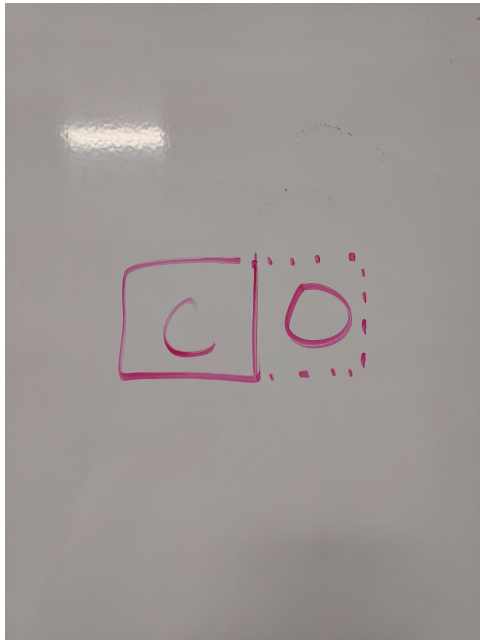


Figure 2: Consider insertion location of O

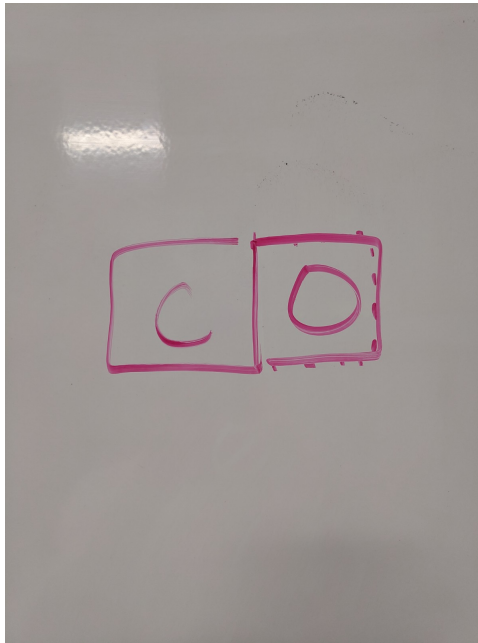


Figure 3: Insert O

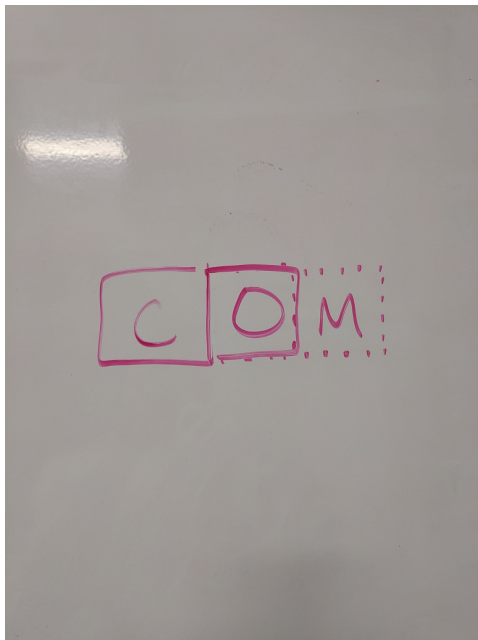


Figure 4: Consider insertion location of M

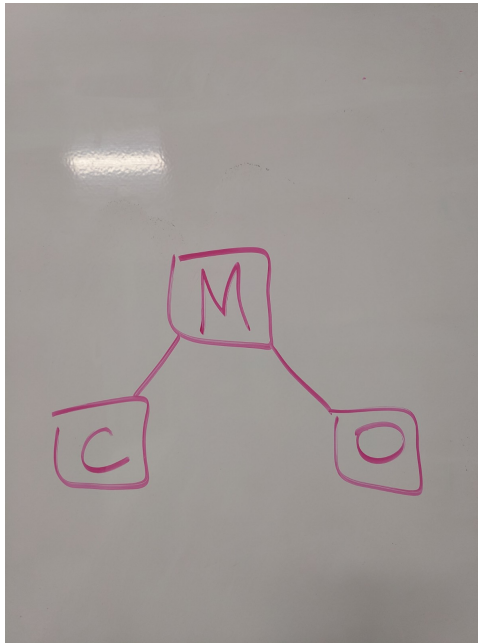


Figure 5: Split and promote M

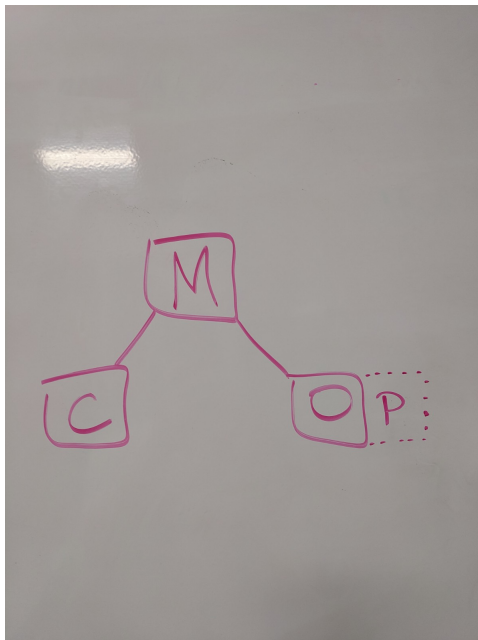


Figure 6: Consider insertion location of P

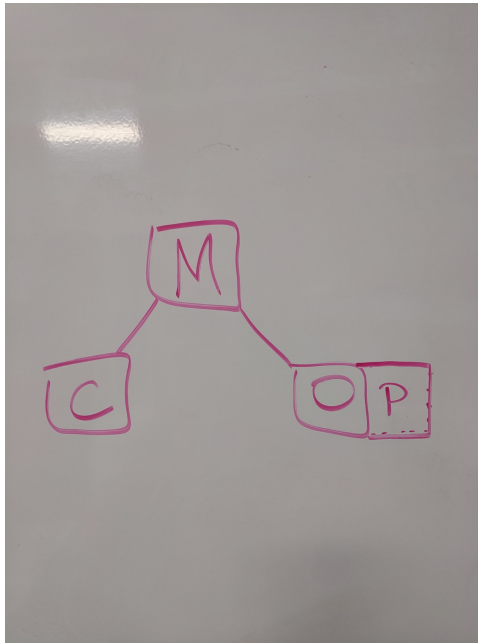


Figure 7: Insert P

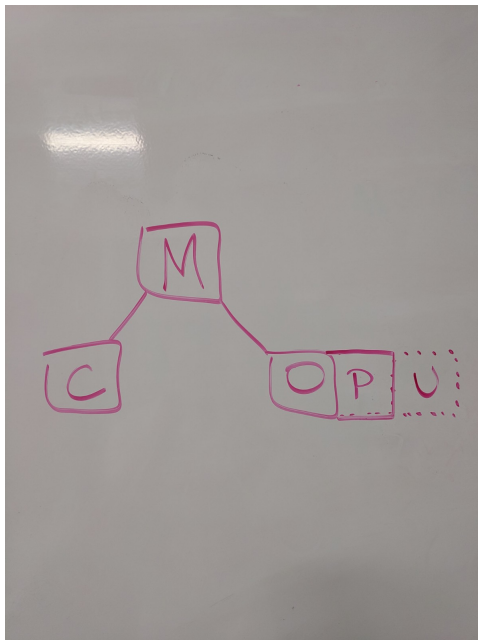


Figure 8: Consider insertion location of U

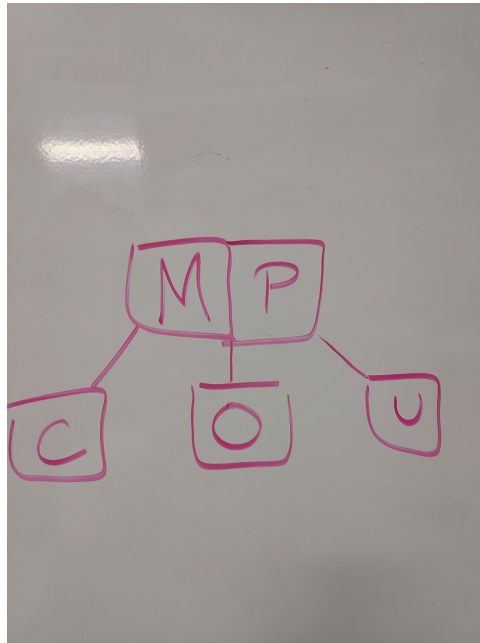


Figure 9: Split and promote P

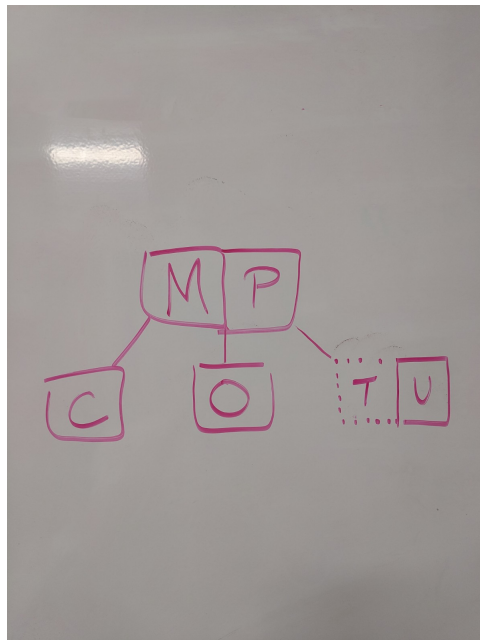


Figure 10: Consider insertion location of T

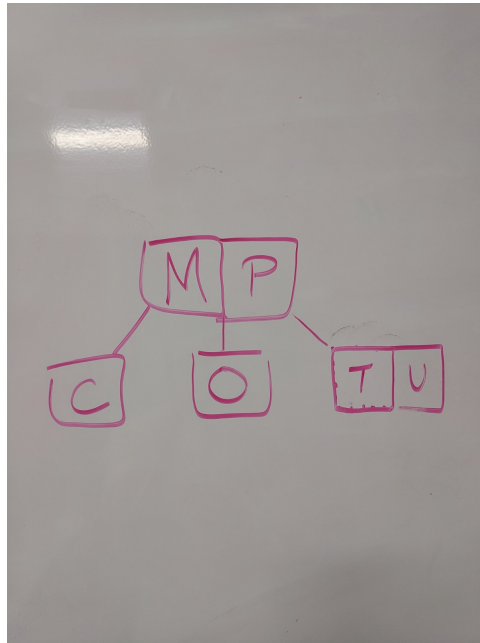


Figure 11: Insert T

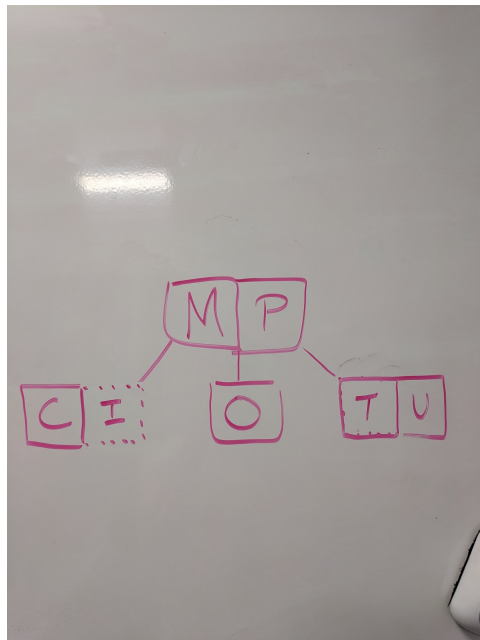


Figure 12: Consider insertion location of I

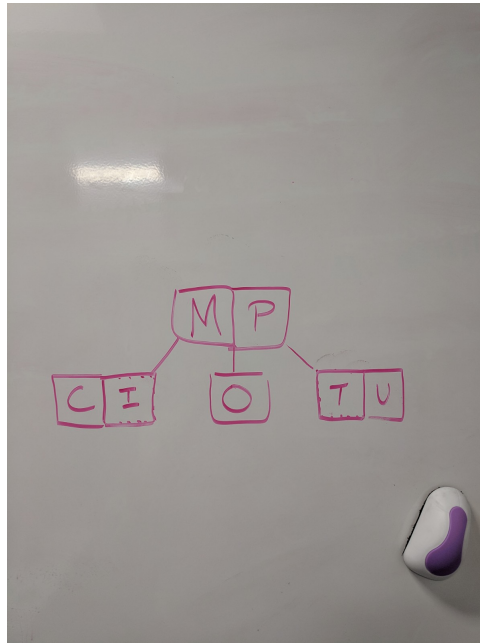


Figure 13: Insert I

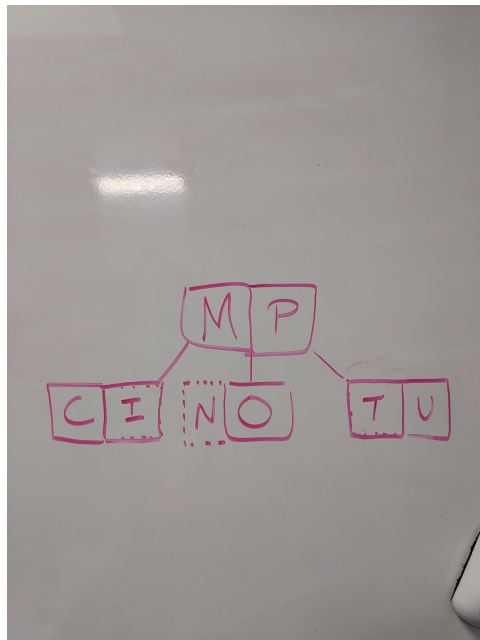


Figure 14: Consider insertion location of N



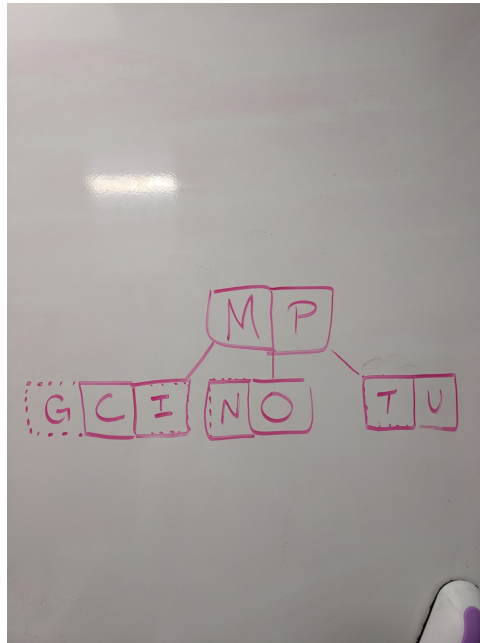


Figure 15: After inserting N, consider insertion location of G

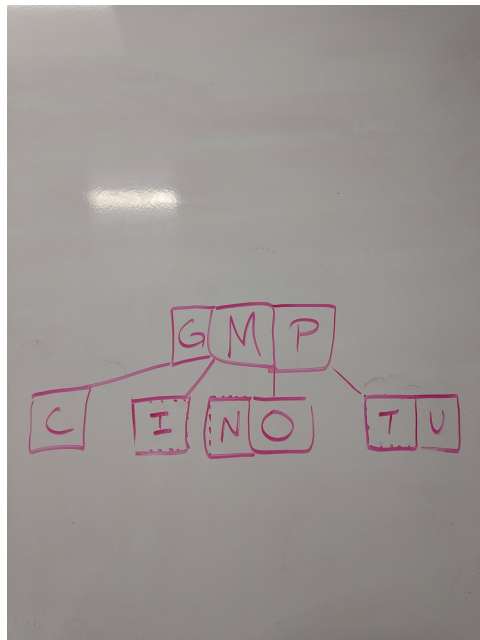


Figure 16: Insert G

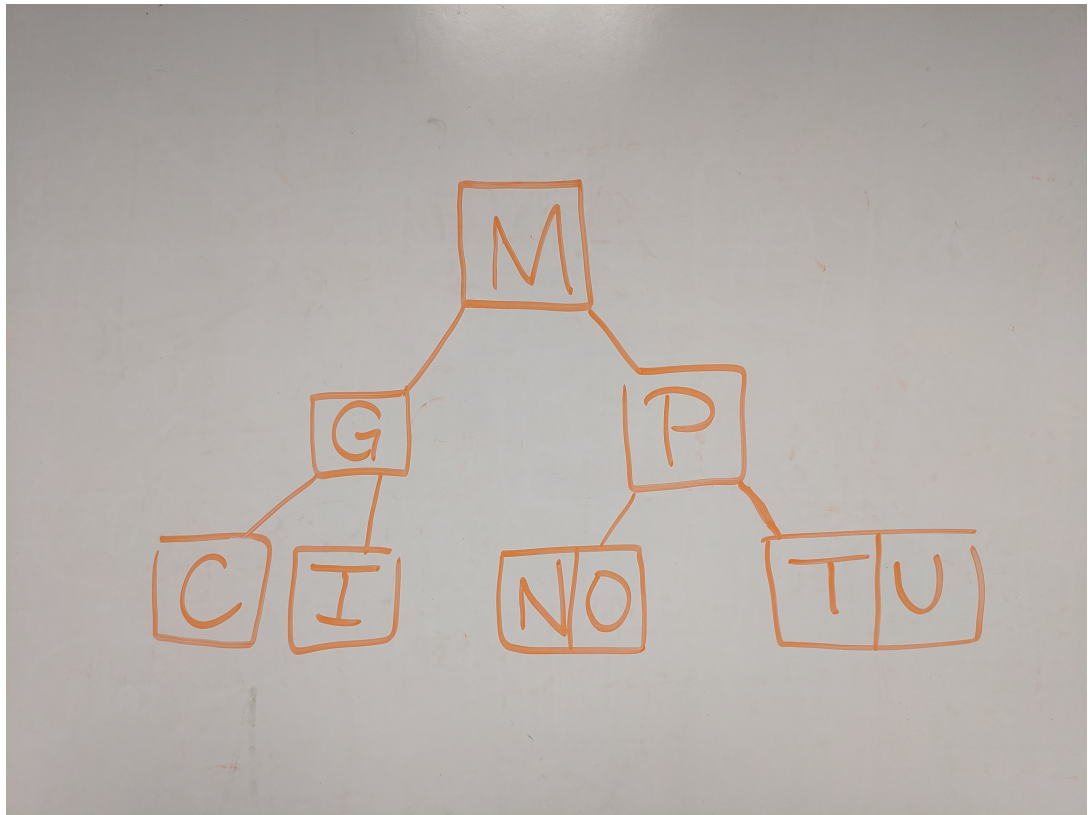


Figure 17: Split and promote M to maintain 2-3 tree rules