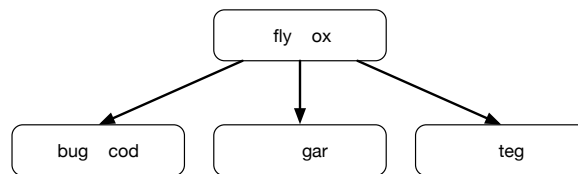


# Midterm Preparation B-Tree Operations

Rules: Use rotate operations before split operations. Prefer left rotate over right rotate if there is a choice.

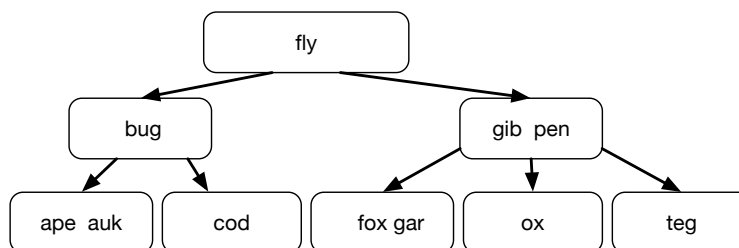
1. Insert 'fly' and 'gar' into an empty B-tree
2. Insert 'teg'
3. Insert 'bug'
4. Insert 'cod'
5. Insert 'ox'

Your tree should now look like this one:



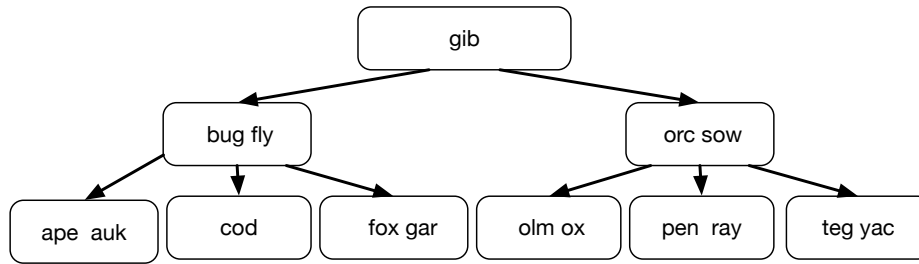
6. Insert 'gib'
7. Insert 'ape'
8. Insert 'auk'
9. Insert 'fox'
10. Insert 'pen'

Your tree should now look like this one:

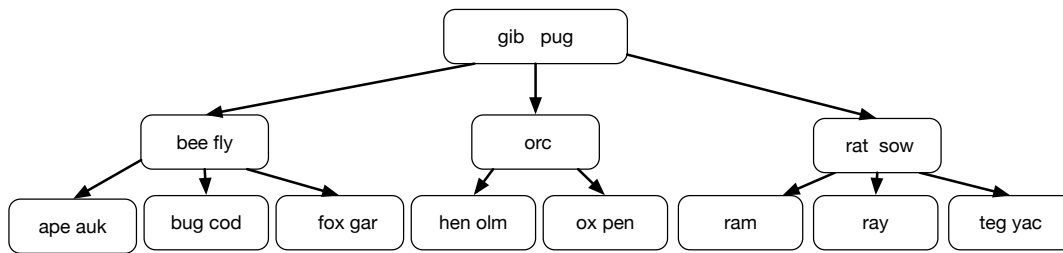


11. Insert 'olm'
12. Insert 'orc'
13. Insert 'ray'
14. Insert 'sow'
15. Insert 'yak'

Your tree should now look like this one:

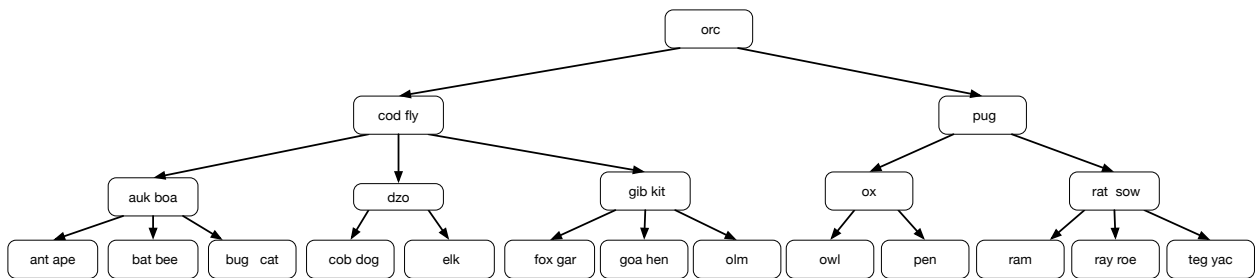


16. Insert 'pug'
17. Insert 'rat'
18. Insert 'bee'
19. Insert 'hen'
20. Insert 'ram'



21. Insert 'kit'
22. Insert 'goa'
23. Insert 'owl'
24. Insert 'roe'
25. Insert 'elk'
26. Insert 'dzo'
27. Insert 'dog'
28. Insert 'cat'
29. Insert 'bat'
30. Insert 'ant'

From the following B-tree, delete dzo. (For deletes, always choose the predecessor and prefer left rotate over right rotate).



1. Then delete 'orc'.
2. Delete 'roe'
3. Delete 'rat'
4. Delete 'pug'
5. Delete 'fly'
6. Delete 'cod'