

B-Tree

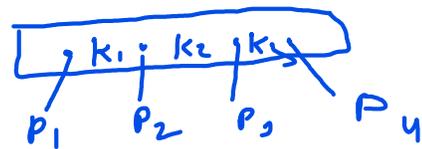
B-Tree is nothing but m-way search tree with some condition

- $\lceil \frac{m}{2} \rceil$ children
- Root can have min 2 child
- All leaf must be in same level
- Creation must be on bottom up

Example — Create a B-Tree of order 4
each node have —

at most — 4 pointer and 3 Key

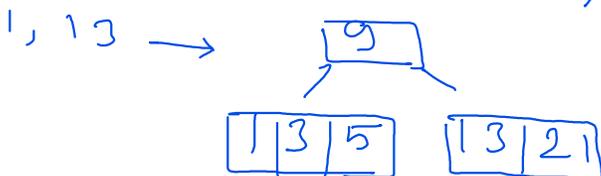
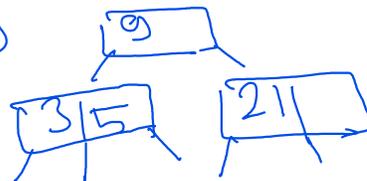
2 pointer and 1 key



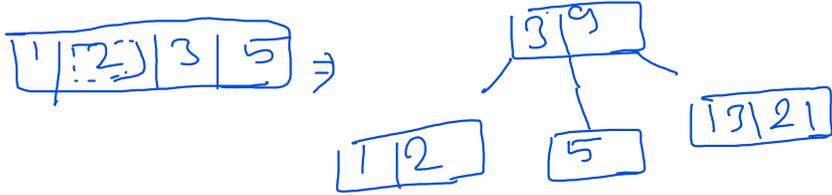
Insert — 5, 3, 21, 9, 1, 13, 2, 7, 10, 12, 4, 8

Delete — 2, 21, 10, 3, 4

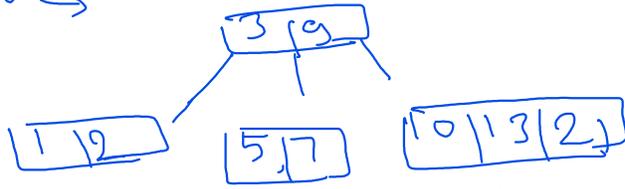
step 1 - insert 5



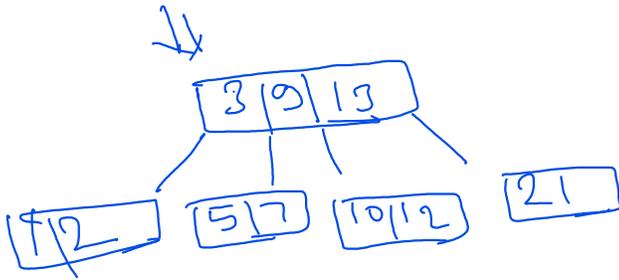
2-



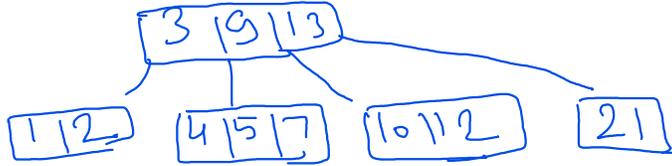
7, 10 →



12 →



4 →



8 →

