## FP - Growth

=> Example - 2 :
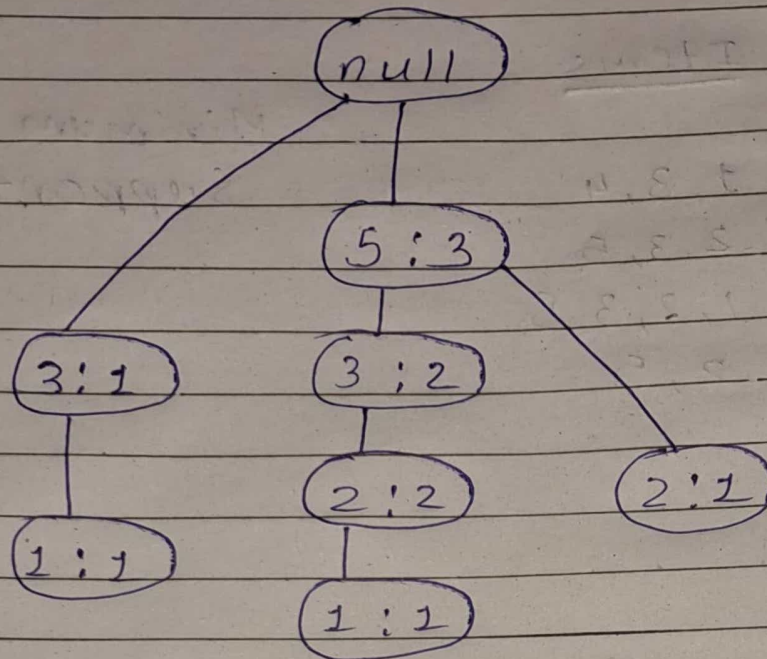
| TID | Items |
|-----|-------|
| 100 | 1, 3, 4 |
| 200 | 2, 3, 5 |
| 300 | 1, 2, 3, 5 |
| 400 | 2, 5 |

Minimum Support = 2

Step - 1 :

| item | frequency | |
|------|-----------|---|
| 1 | 2 | |
| 2 | 3 | |
| 3 | 3 | |
| 4 | 1 | X |
| 5 | 3 | |

| TID | Sorted Items |
|-----|--------------|
| 100 | 3, 1 |
| 200 | 5, 3, 2 |
| 300 | 5, 3, 2, 1 |
| 400 | 5, 2 |

{5:5, 3:3, 2:3, 1:2}

## FP-tree



| Item | Conditional Pattern base |
|------|--------------------------|
| 1 | {3: 1}, {5, 3, 2 : 1} |
| 2 | ~~process~~ {5, 3 : 2}, {5: 1} |
| 3 | {5: 2} |
| 5 | — |

## Conditional FP-tree :-

1) For item 1

2) For item 2 :-

null

5:3

3:2

3) for item 3 :-

null

5: 2
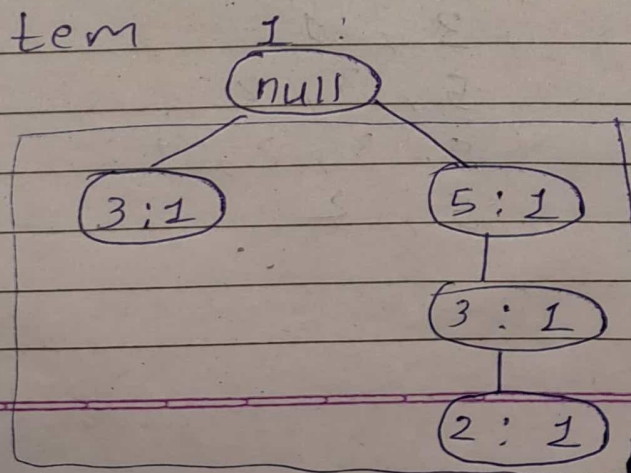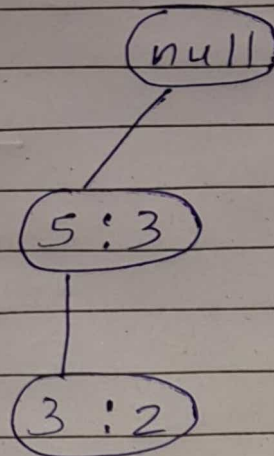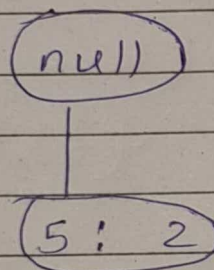
| item | conditional pattern base | conditional FP-tree | Frequent Patterns |
|---|---|---|---|
| 1 | {3:1}, {5,3,2:1} | — | |
| 2 | {5,3:2}, {5,:1} | {5:3, 3:2} | ~~{2}{5,2}~~ |
| 3 | {5:2} | {5:2} | |
| 5 | — | — | — |

| item | Frequent Patterns |
|---|---|
| 1 | — |
| 2 | {5,2:3}, {3,2:2}, {5,3,2:2} |
| 3 | {5,3:2} |
| 5 | — |