

$L_1 = \{I_1(6), I_2(7), I_3(6), I_4(2), I_5(2)\}$

Reordered Support Count  $L = \{I_2(7), I_1(6), I_3(6), I_4(2), I_5(2)\}$

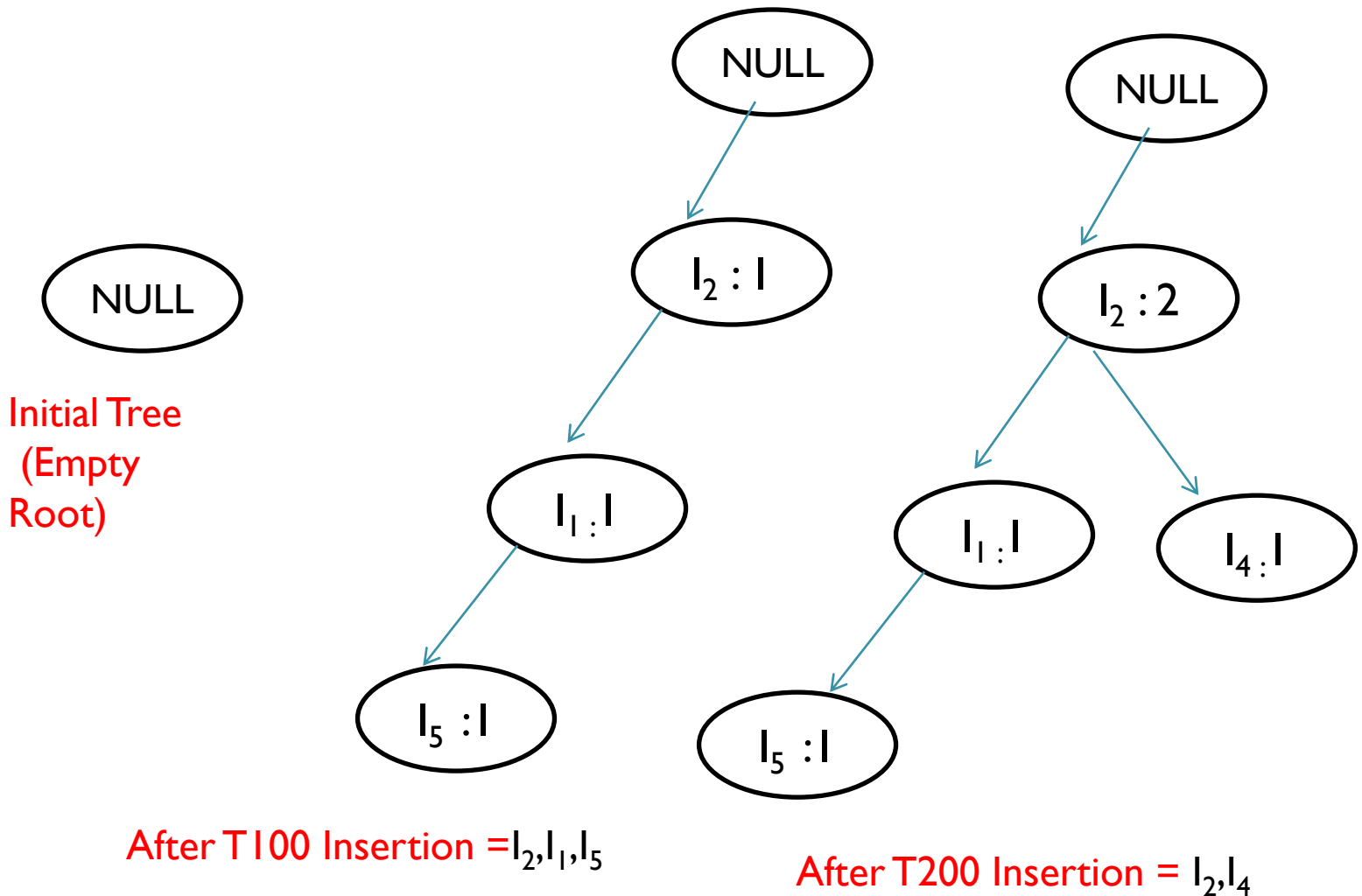
Reordered Transaction Database:

Branch

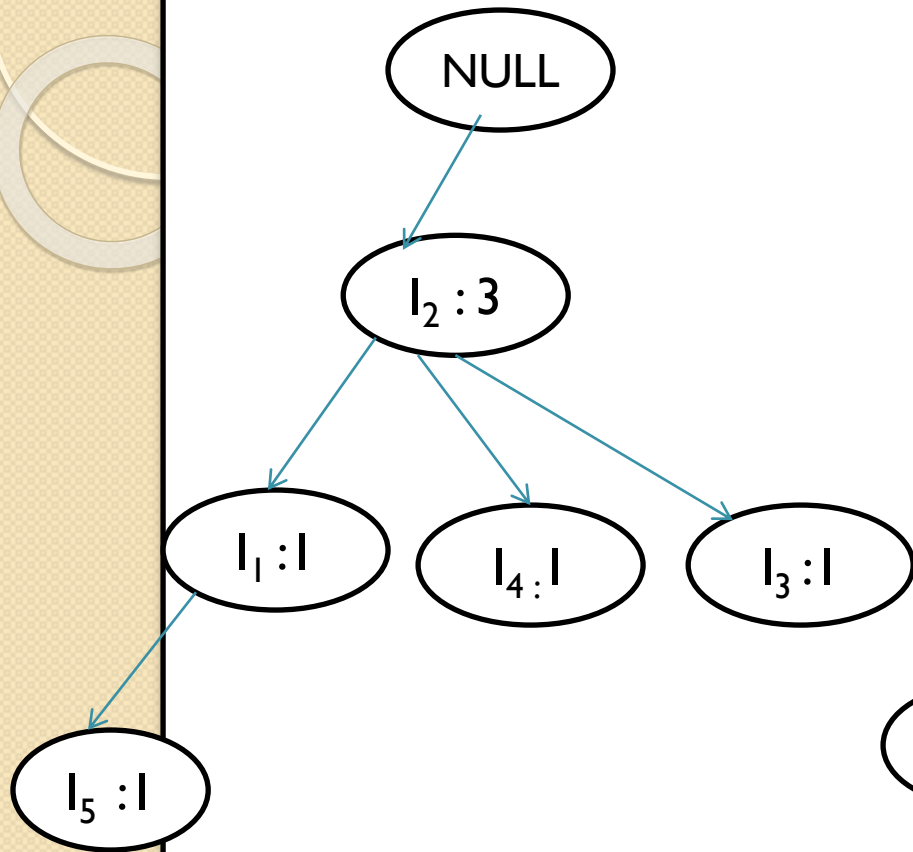
| <i>TID</i> | <i>List of item_IDs</i> |
|------------|-------------------------|
| T100       | I1, I2, I5              |
| T200       | I2, I4                  |
| T300       | I2, I3                  |
| T400       | I1, I2, I4              |
| T500       | I1, I3                  |
| T600       | I2, I3                  |
| T700       | I1, I3                  |
| T800       | I1, I2, I3, I5          |
| T900       | I1, I2, I3              |

| <b>TID</b> | <b>Items</b>  |
|------------|---|
| T100       | I <sub>2</sub> , I <sub>1</sub> , I <sub>5</sub>                  |
| T200       | I <sub>2</sub> , I <sub>4</sub>                                   |
| T300       | I <sub>2</sub> , I <sub>3</sub>                                   |
| T400       | I <sub>2</sub> , I <sub>1</sub> , I <sub>4</sub>                  |
| T500       | I <sub>1</sub> , I <sub>3</sub>                                   |
| T600       | I <sub>2</sub> , I <sub>3</sub>                                   |
| T700       | I <sub>1</sub> , I <sub>3</sub>                                   |
| T800       | I <sub>2</sub> , I <sub>1</sub> , I <sub>3</sub> , I <sub>5</sub> |
| T900       | I <sub>2</sub> , I <sub>1</sub> , I <sub>3</sub>                  |

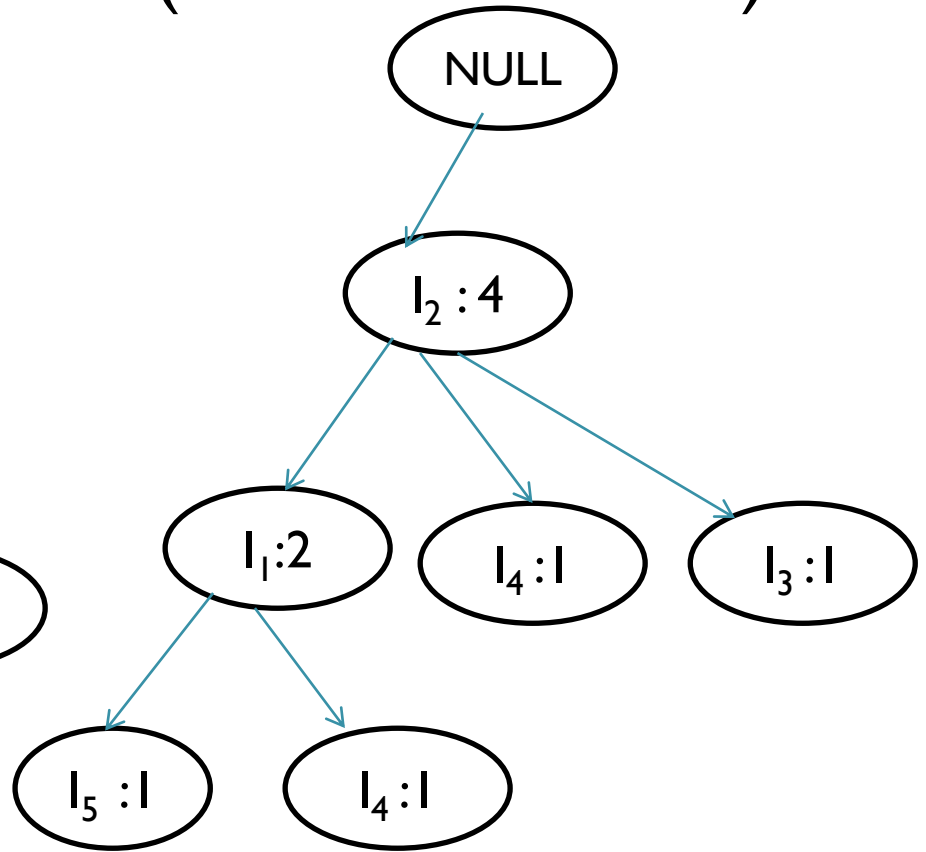
- FP Tree Construction (transaction wise)



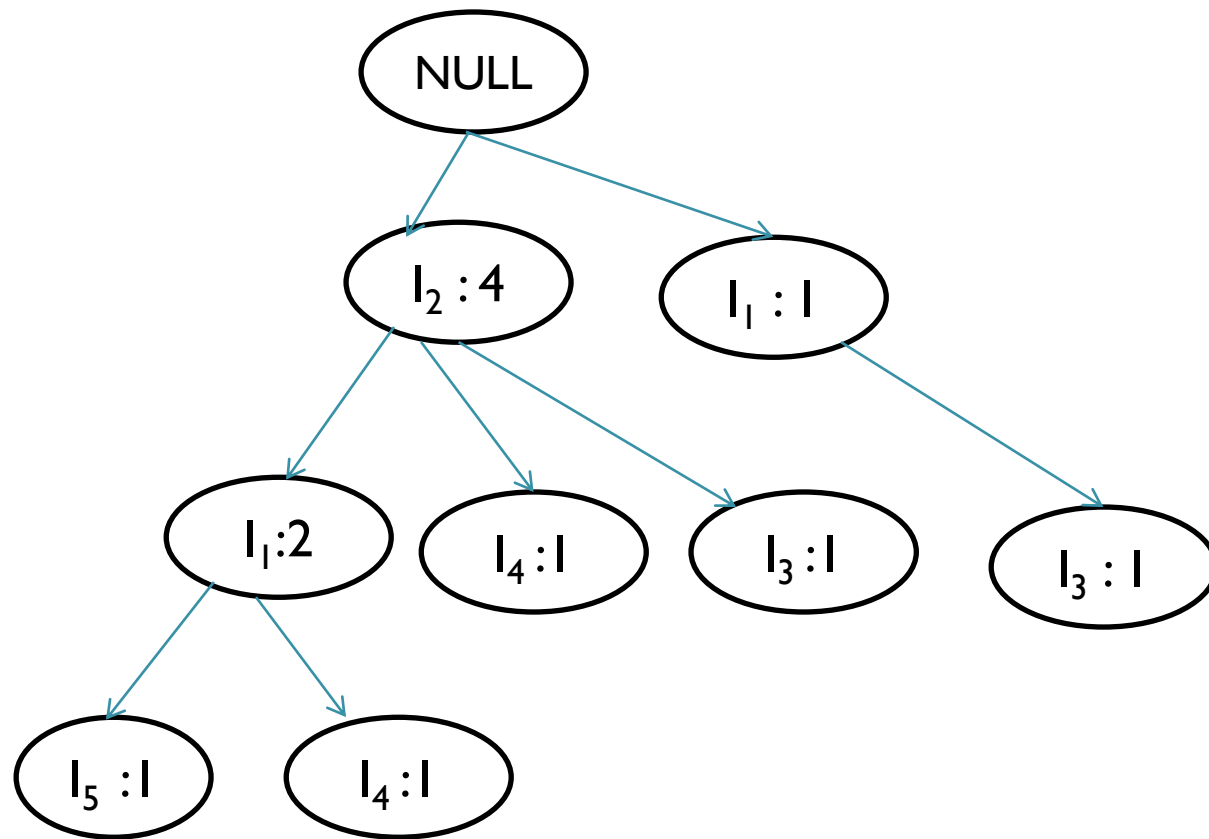
- FP Tree Construction (transaction wise)



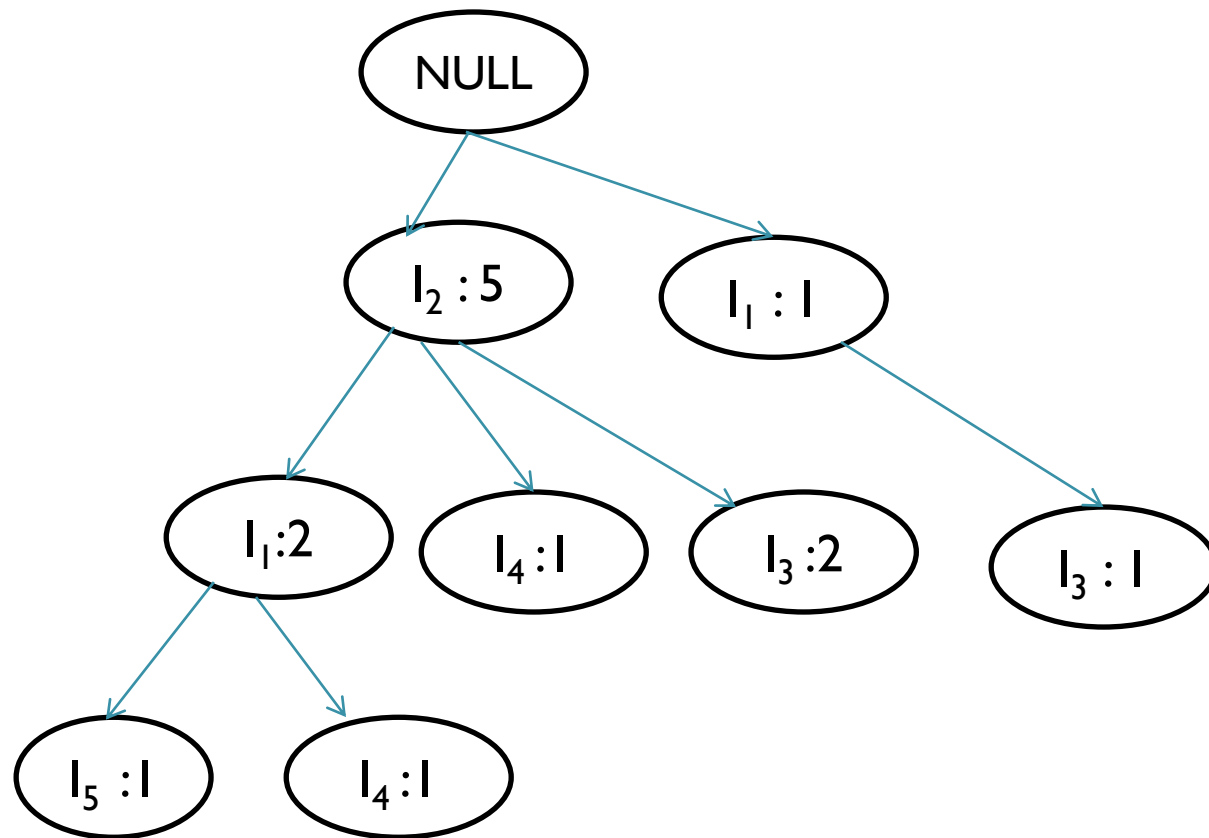
After T300 Insertion= $I_2, I_3$



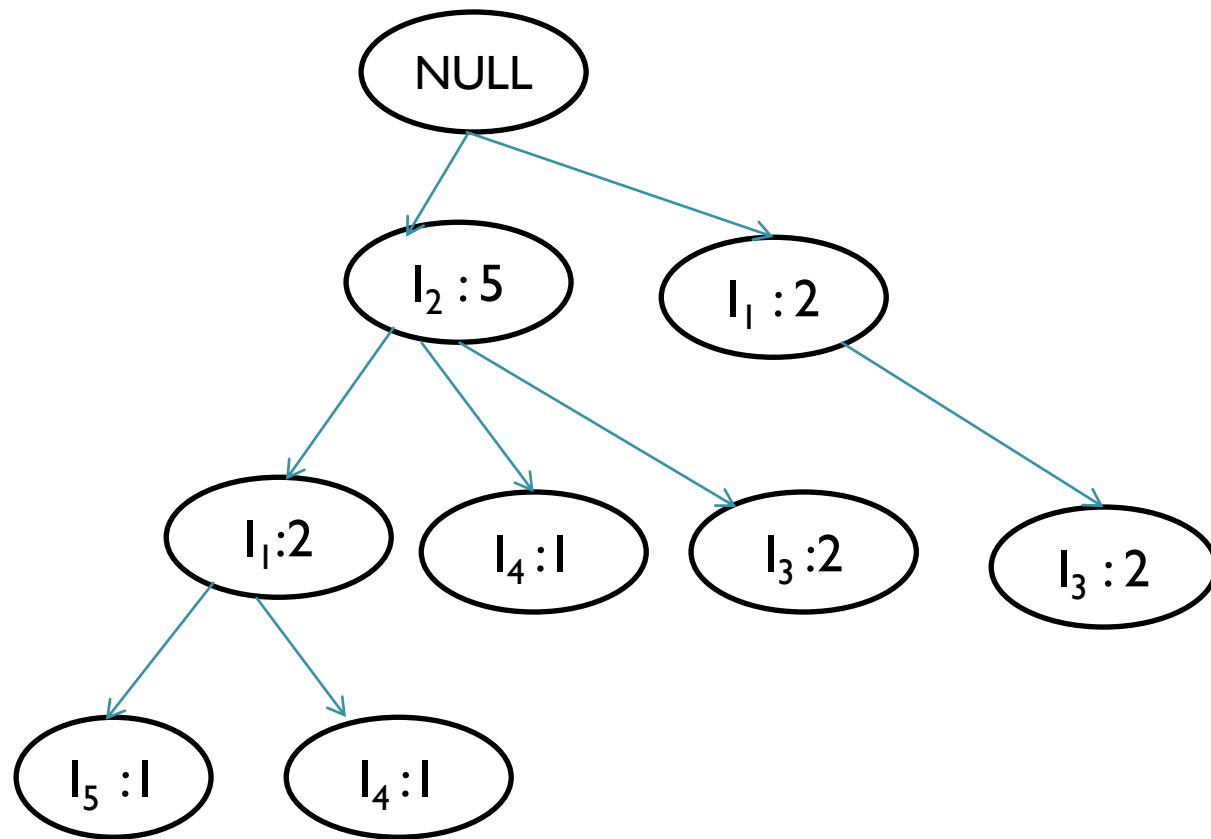
After T400 Insertion= $I_2, I_1, I_4$



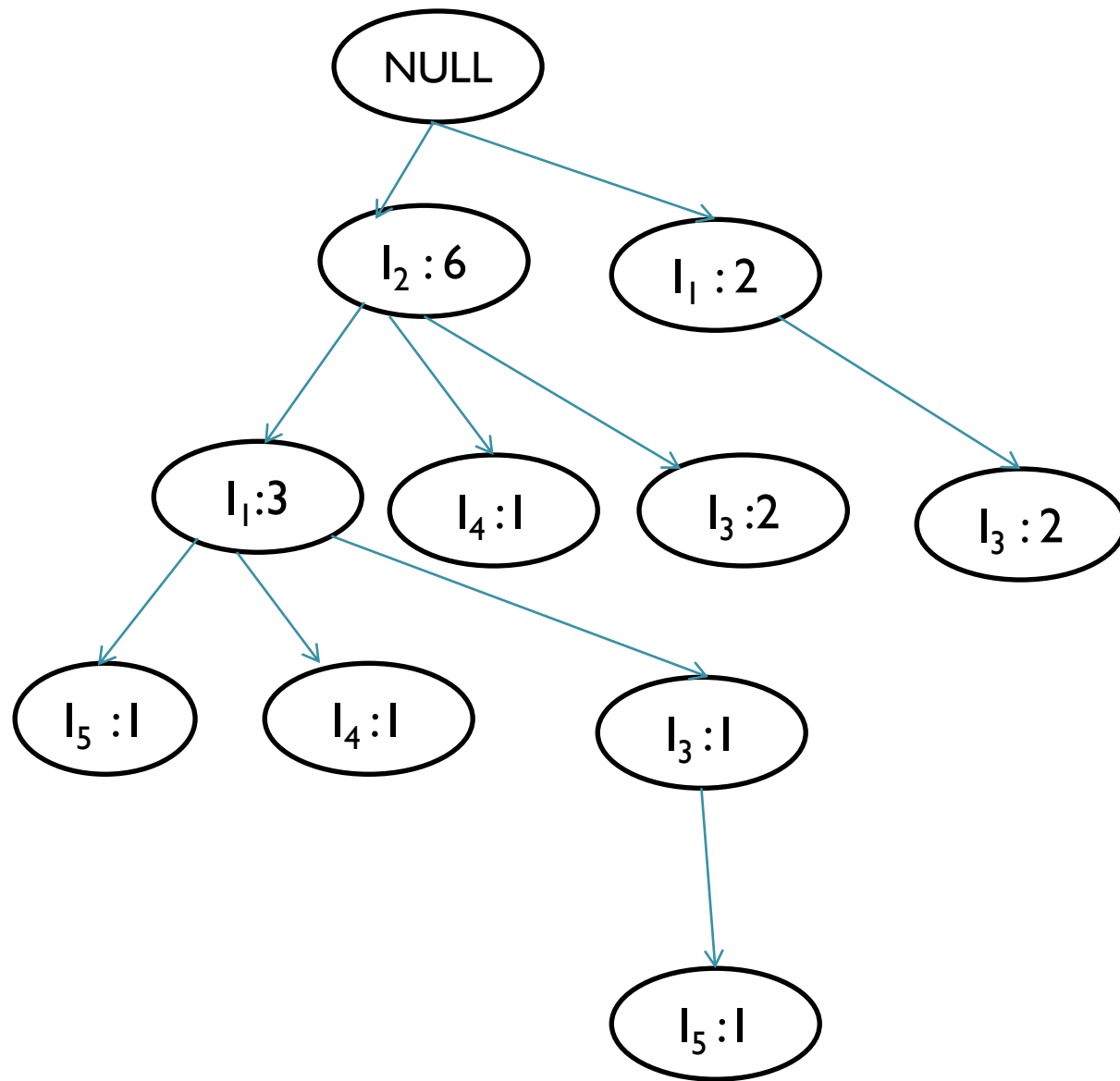
After T500 Insertion =  $I_1, I_3$



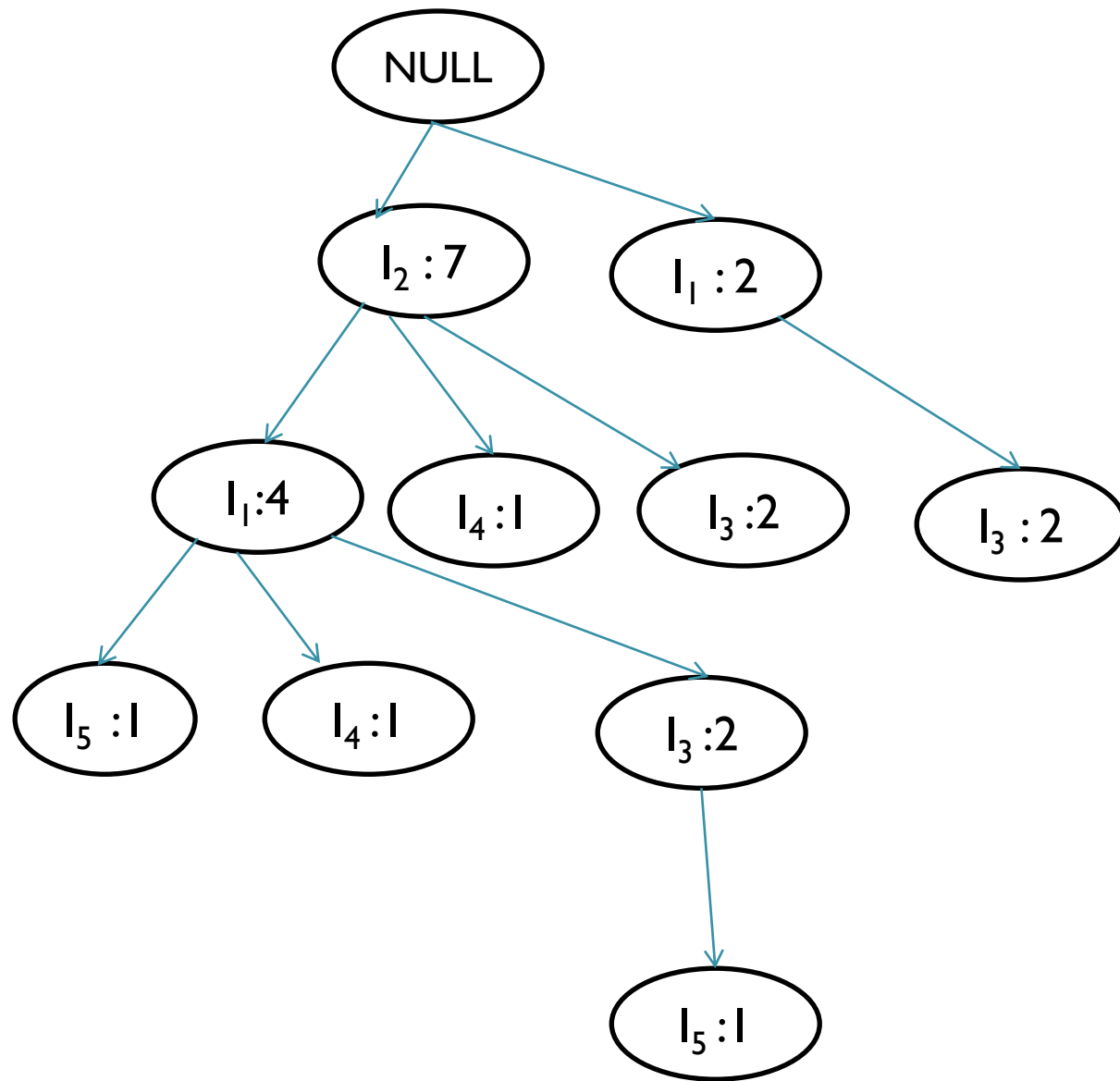
After T600 Insertion =  $I_2, I_3$



After T700 Insertion =  $I_1, I_3$

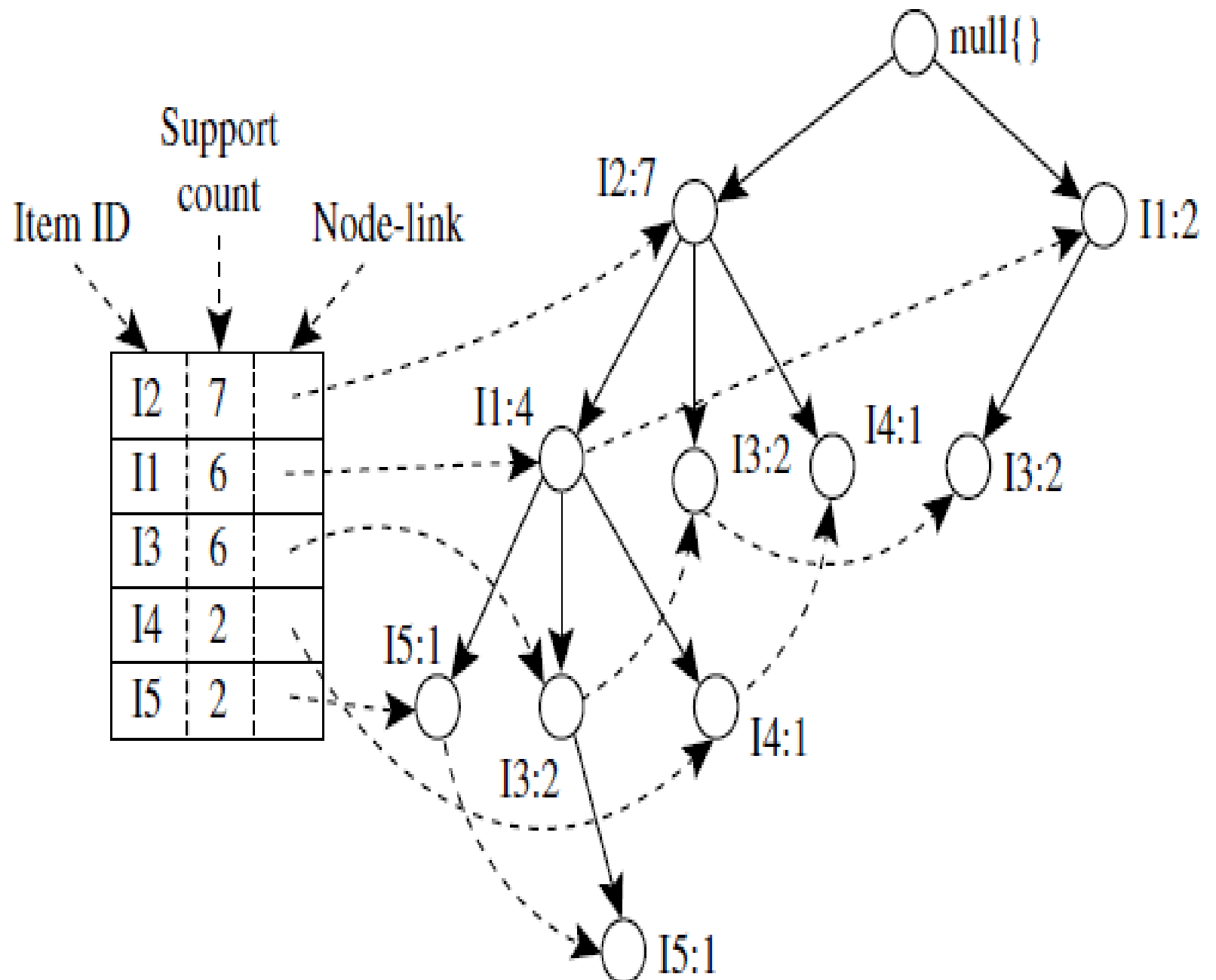


After T800 Insertion =  $I_2 I_1, I_3, I_5$



After T900 Insertion =  $I_2 I_1, I_3,$





## Mining the FP-Tree by Creating Conditional (Sub-)Pattern Bases

| <i>Item</i> | <i>Conditional Pattern Base</i>           | <i>Conditional FP-tree</i>                            | <i>Frequent Patterns Generated</i>                |
|-------------|---|---|---|
| I5          | $\{\{I2, I1: 1\}, \{I2, I1, I3: 1\}\}$    | $\langle I2: 2, I1: 2 \rangle$                        | $\{I2, I5: 2\}, \{I1, I5: 2\}, \{I2, I1, I5: 2\}$ |
| I4          | $\{\{I2, I1: 1\}, \{I2: 1\}\}$            | $\langle I2: 2 \rangle$                               | $\{I2, I4: 2\}$                                   |
| I3          | $\{\{I2, I1: 2\}, \{I2: 2\}, \{I1: 2\}\}$ | $\langle I2: 4, I1: 2 \rangle, \langle I1: 2 \rangle$ | $\{I2, I3: 4\}, \{I1, I3: 4\}, \{I2, I1, I3: 2\}$ |
| I1          | $\{\{I2: 4\}\}$                           | $\langle I2: 4 \rangle$                               | $\{I2, I1: 4\}$                                   |