

\* FP - Growth:-\* Example :- 1.

TID	Items
1	E K M N o y
2	D E K N o y
3	A E K M
4	C K M U y
5	C E I K o

minimum-Support = 3

→ Step:-1

Item	Freq
E	4 ✓
K	5 ✓
M	3 ✓
N	2
o	3 ✓
y	3 ✓
D	1
A	1
C	2
U	1
I	1

→ Step:-2

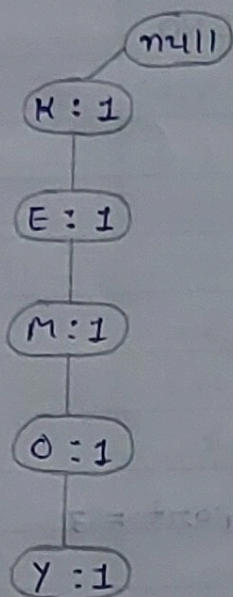
{K:5, E:4, M:3, o:3, y:3}

TID	Sorted Items
1	K E M o y
2	K E o y
3	K E M
4	K M y
5	K E o

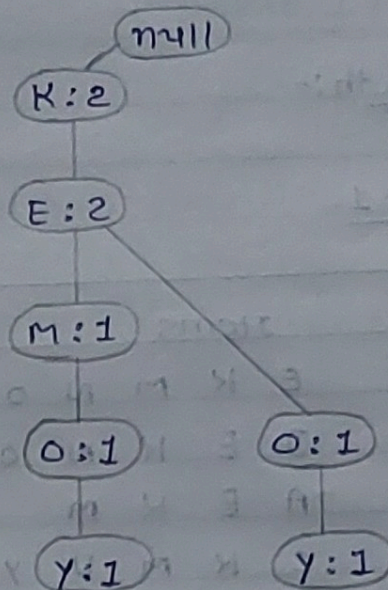


→ step 1-3.

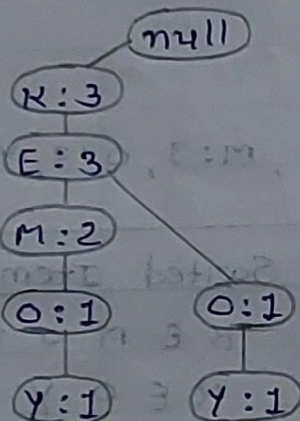
⇒ Insert KEMoy



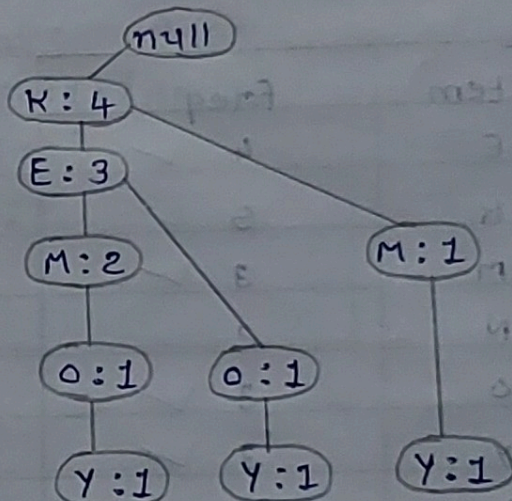
⇒ Insert KEOY



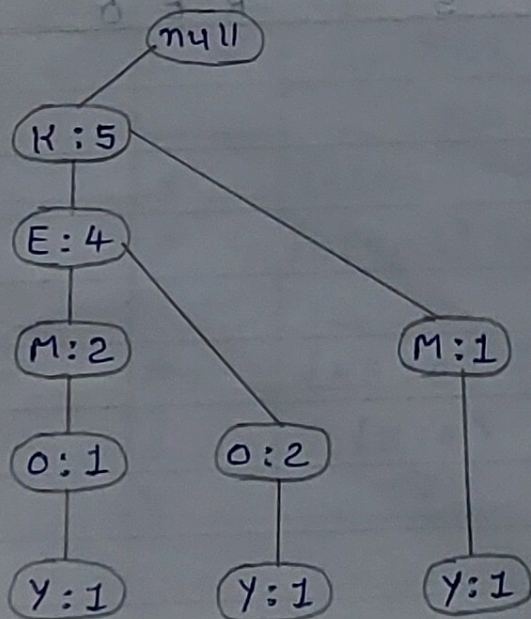
⇒ Insert KEM



⇒ Insert KMY



⇒ Insert KEO





→ Step 1-4.

Item	Conditional Pattern Base
y	{KEMo:1} {KEo:1} {KM:1}
o	{KEM:1} {KE:2}
M	{KE:2} {K:1}
E	{K:4}
K	-

→ Step 1-5

Item	conditional Pattern Base	Conditional FP-tree
y	{KEMo:1} {KEo:1} {KM:1}	{K:3}
o	{KEM:1} {KE:2}	{K:3, E:3}
M	{KE:2} {K:1}	{K:3}
E	{K:4}	{K:4}
K	-	

→ Step 1-6

Item	Conditional Pattern Base	Conditional FP-tree	Frequent patterns generated
y	{KEMo:1} {KEo:1} {KM:1}	{K:3}	{K, y:3}
o	{KEM:1} {KE:2}	{K:3, E:3}	{K, o:3} {K, E, o:3}
M	{KE:2} {K:1}	{K:3}	{K, M:3}
E	{K:4}	{K:4}	{K, E:4}
K	-	-	-



\* Example 1-2

TID	Items
1	1 2 5
2	2 4
3	2 3
4	1 2 4
5	1 3
6	2 3
7	1 3
8	1 2 3 5
9	1 2 3

Min\_support = 2

→ step:-1

→ step:-2

Item	Freq
1	6
2	7
3	6
4	2
5	2

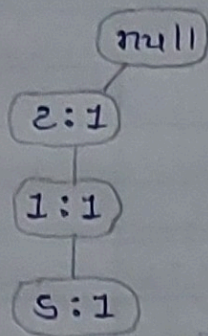
{2:7, 1:6, 3:6, 4:2, 5:2}

TID	Sorted Item
1	1 2 5
2	2 4
3	2 3
4	1 2 4
5	1 3
6	2 3
7	1 3
8	1 2 3 5
9	1 2 3

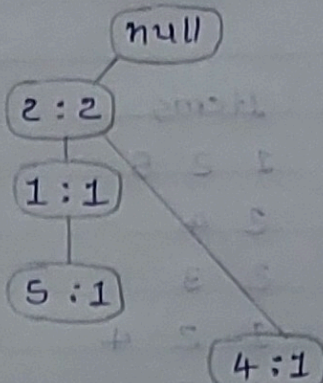


→ step:-3

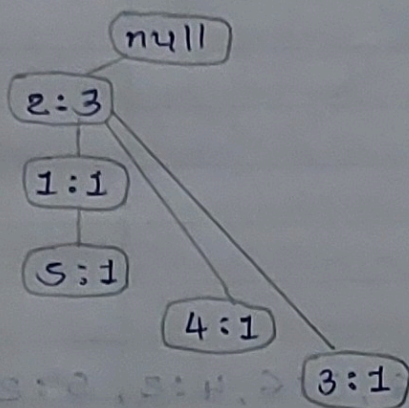
→ Insert 2 1 5



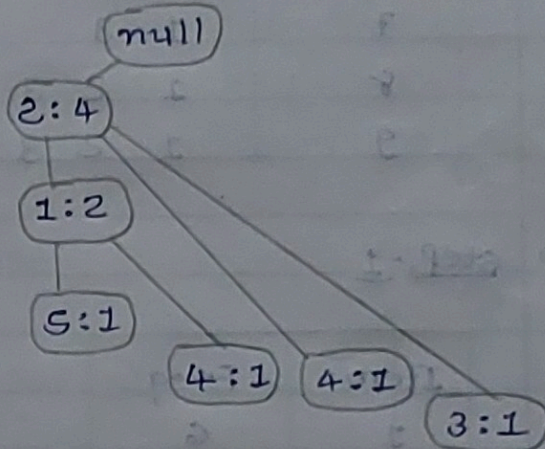
→ Insert 2 4



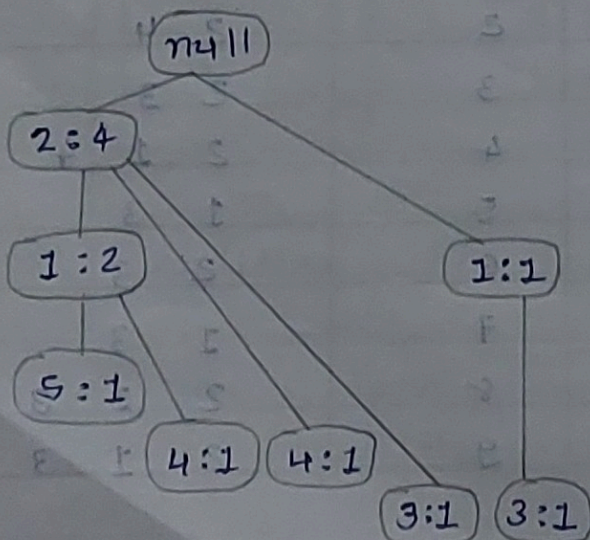
→ Insert 2 3



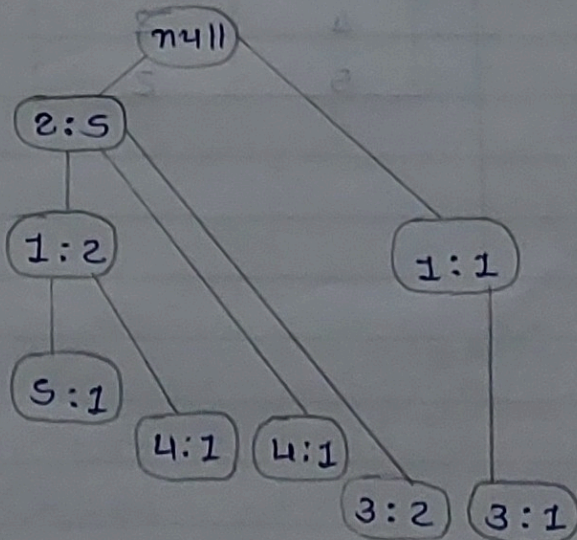
→ Insert 2 4 1



→ Insert 5 1 3

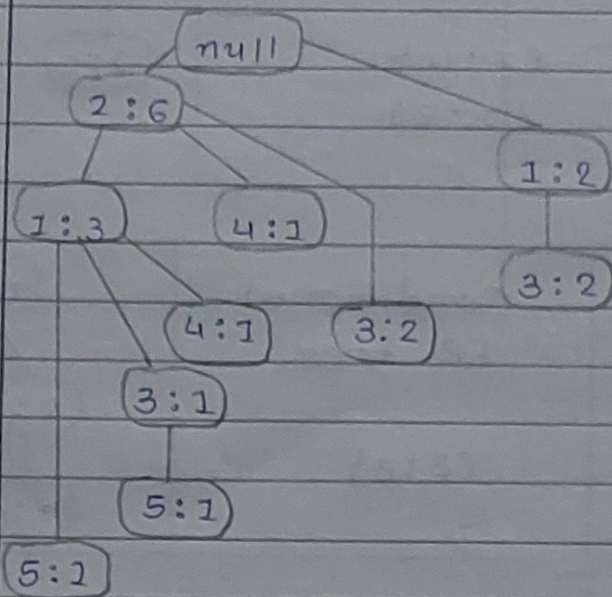


→ Insert 2 3

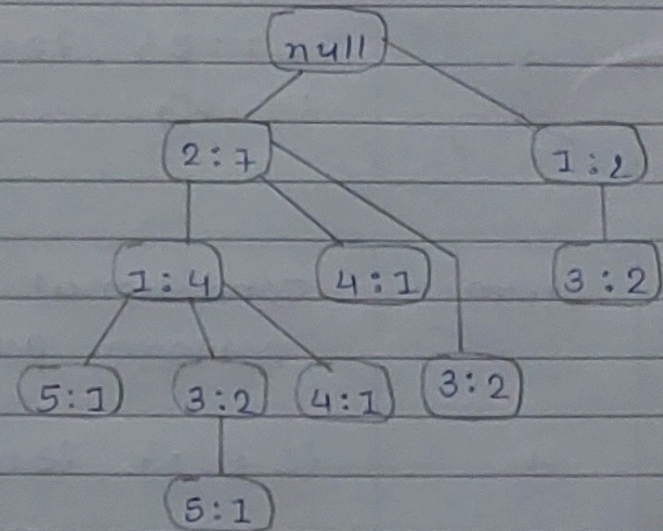




→ Insert 2 1 3 5



→ Insert 2 1 3



→ Conditional Pattern Base

Item	Conditional pattern base
5	{ 2, 1 : 1 } { 2, 1 3 : 1 }
3	{ 2, 1 : 2 } { 2 : 2 } { 1 : 2 }
4	{ 2, 1 : 1 } { 2 : 1 }
1	{ 2 : 4 }
2	-

→ Condition FP Tree

Item	Conditional Pattern Base	Conditional FP tree	
5	{ 2 1 : 1 }	{ 2 : 2 }	
	{ 2 1 3 : 1 }	{ 1 : 2 }	



Item	Conditional Pattern Base	Conditional FP tree	
3	$\{2:1:2\}, \{2:2\}$ $\{1:2\}$	$\{2:4\}$ $\{1:2\}$	<pre> graph TD     null1((null)) --&gt; 24(2:4)     null1 --&gt; 12_1(1:2)     24 --&gt; 12_2(1:2) </pre>

Item	Conditional Pattern Base	Conditional FP tree	
4	$\{2:1:1\}, \{2:1\}$	$\{2:2\}$	<pre> graph TD     null2((null)) --&gt; 22(2:2)     22 --&gt; 11(1:1)     style 11 stroke-dasharray: 5 5 </pre>

Item	Conditional Pattern Base	Conditional FP tree	
1	$\{2:4\}$	$\{2:4\}$	<pre> graph TD     null3((null)) --&gt; 24(2:4) </pre>

→ Conditional FP Tree and Frequent pattern Generated.

Item	Conditional Pattern Base	Conditional FP Tree	Frequent Pattern Generated
5	$\{2:1:1\},$ $\{2:3:1\}$	$\{2:2\} \{1:2\}$	$\{2:5:2\} \{1:5:2\}$ $\{2:5:2\}$
3	$\{2:1:2\} \{2:2\}$ $\{1:2\}$	$\{2:4\} \{1:2\}$	$\{2:3:4\}$ $\{1:3:2\}$



4	$\{2, 1 : 1\}$ $\{2 : 1\}$	$\{2 : 2\}$	$\{2, 1, 3 : 2\}$ $\{2, 4 : 2\}$
1	$\{2 : 4\}$	$\{2 : 4\}$	$\{2, 1 : 4\}$
2	—	—	—