

Lab - 5★ Apriori Example :-

<u>TID</u>	<u>Items</u>
T <sub>1</sub>	B, M
T <sub>2</sub>	B, D, Be, E
T <sub>3</sub>	M, D, Be, C
T <sub>4</sub>	B, M, D, Be
T <sub>5</sub>	B, M, D, C

→ Min Support = 3

Frequent - 1 :

L<sub>1</sub> : Items      Support

{B}	4
{M}	4
{D}	4
{Be}	3
{E}	1
{C}	2

L<sub>1</sub> : Items      Support

{B}	4
{M}	4
{D}	4
{Be}	3

### Frequent - 2 :

C2:	<u>Items</u>	<u>Support</u>		L2:	<u>Items</u>	<u>Support</u>
	{B, M}	3			{B, M}	3
	{B, D}	3			{B, D}	3
	{B, Be}	2	X		{M, D}	3
	{M, D}	3			{D, Be}	3
	{M, Be}	2	X			
	{D, Be}	3				

### Frequent - 3

C3:	<u>Items</u>	<u>Support</u>		L3:	<u>Items</u>	<u>Support</u>
	{B, M, D}	2	X		-	-
	{B, D, Be}	2	X			
	{M, D, Be}	2	X			

→ Here, we will consider Frequent-2



Rule generation from L2 :

Association Rule	Min support	confidence	confidence (%)
B $\rightarrow$ M	3	$3/4 = 0.75$	75 %
M $\rightarrow$ B	3	$3/4 = 0.75$	75 %
B $\rightarrow$ D	3	$3/4 = 0.75$	75 %
D $\rightarrow$ B	3	$3/4 = 0.75$	75 %
M $\rightarrow$ D	3	$3/4 = 0.75$	75 %
D $\rightarrow$ M	3	$3/4 = 0.75$	75 %
D $\rightarrow$ Be	3	$3/4 = 0.75$	75 %
Be $\rightarrow$ D	3	$3/3 = 1$	100 %

$\rightarrow$  Here, selected association is

Be  $\rightarrow$  D