SYMBOLIC DATA MINING

· Frequent: It supp(X) > min-supp, then X is frequent

· [Closed-Itemset]: An itemset, doesn't have a superset with some supp

· Generator: An itenset, doesn't have a subset with some supp

	A	B	C	b	E
1	X	X	3	X	X
2	X	121/	X		
3	X	X	X		X
4		X	X		X
5	X	X	X		X

Itemset: A, AB, BCE	
Support(A)=4	
Support (AB)=3	
Support (BCE)=3	
Min = Sugart . The shall	

One Size Larger Superset:

SAME X +

L SAME IXIXI

APRIORI (breadth-first) (levelwise)

An Sant			0/2//	5 10.5% N
FC ₁		F ₁ '		
A 4 B 4 C 4		A 4	(
B 4	-	B 4	(
01		C 4	•	
E 4	, ,	= 4		
	/ :		(
F	K	F	,	
FC ₂		12	·	
AB 3		AB 3	C	
AC 3		AC 3	(
AE 3		AE 3		
BC 3		3C 3		
BE 4	·	BE 4		
CE 3		CE 3		
CES	1			
	1			
FC_3		F ₃		
ABC 2	. 1	ABC 2		
ABE 3		ABE 3		
ACE 2		CE 2	100	
BCE 3	. (3CE 3		
DCL -	1			
FC	6		i	
		4		
ABCE 2	-> A	BCE 2	, ,	
			-,-	
FCs	2		Fl _s =	15
Ø stop	!			

	A	B	C	D	E
1	X	×		X	X
2	X		X		
3	X	X	×		X
4		X	X		X
5	X	X	X		X

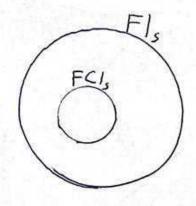
min-supp=2

APRIORI-CLOSE (breadth-first) (levelwise)

	1.	· ~.		
FC ₁	F_{4}			
A 4	itenset	suppor	t closed?	,
B 4	. A	4	(50)	ť
C 4 ->	B	4	-Jo- 00	, ,
	1 C	4	(30)	1
p 1	, E	4	-yes no	, ,
E 4	V.			·
1	1			1
FC ₂	F			1
1 0 2	literary bl		1 101	
A B 3	· [iterset]	100	chosed?	
AC 3	1 AB	3	yes no	a a
AE 3	I AC	3	(30)	
B C 3	AE	3	yes no	-10
BEY	BC	3	-yo 10	7
CE 3	CE	3	yes 10	
/	.		N XIV	
	· -			
FC3	1 +3			1
ABC-2	· [iteract]	apport	closed?	(
ABE 3 .	ABE	3	(Jes)	1
ACE 2	BCE	3	(Jer)	1
BCE 3				,
/			,	
			F	Tls = 1.
FC,				
Ø stral			[Cls= 6
& stobi				

	A	В	C	b	E
1	X	X		Х	X
2	X		X		
3	X	X	X		X
4		X	X		Χ
5	X	X	X		X

min-supp=3



ECLAT (vertical) (depth-first)

	A	B	C	D	E
1→ABDE	1	1	2	1	1
2→AC	2	3	3		3
3→ABCE	3	5	5		5
4→BCE					

5-ABCE

	Α	ß	C	מ	E
1	X	X		X	×
2	X		X		
3	X	X	X	n	X
4		X	X		X
5	X	X	X		X

min-supp=3

