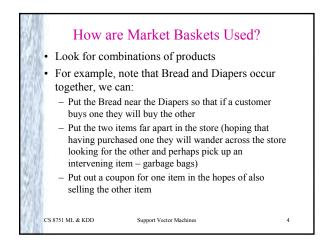
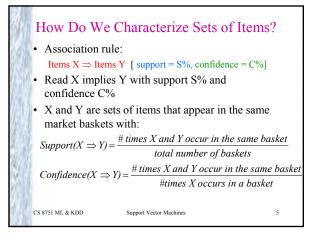
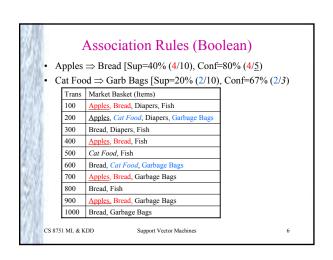


£ .	0	Market Basket Analy rations gather <i>market baskets</i> – list chased by customers	
	Trans	Market Basket (Items)	]
100	100	Apples, Bread, Diapers, Fish	
14.5	200	Apples, Cat Food, Diapers, Garbage Bags	
1211	300	Bread, Diapers, Fish	
100	400	Apples, Bread, Fish	
6.105	500	Cat Food, Fish	
41.776	600	Bread, Cat Food, Garbage Bags	
	700	Apples, Bread, Garbage Bags	
10.1	800	Bread, Fish	
MAG D	900	Apples, Bread, Garbage Bags	
10.0	1000	Bread, Garbage Bags	
CS	8751 ML & K	DD Support Vector Machines	3









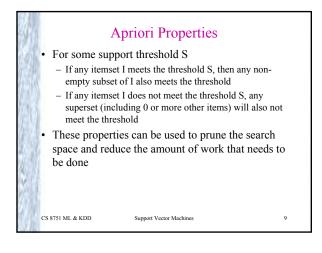
## Apriori

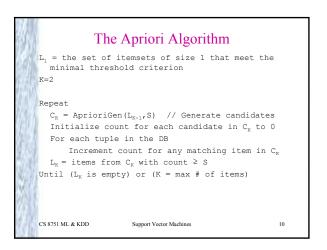
- · Agrawal and Srikant
- Efficient mechanism for finding association rules by efficiently finding sets of items (itemsets) that meet a minimal support criterion
- Builds itemsets of size K that meet the support criterion by using the items of size K 1
- Makes use of certain principles regarding itemsets to limit the work that needs to be done
- Each size of itemsets constructed in one pass through the DB
- Very popular association rule mining algorithm

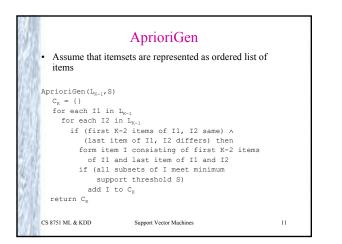
Support Vector Machines

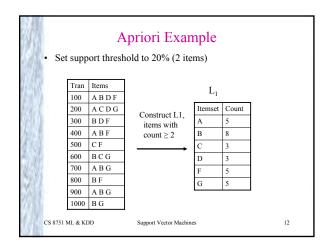
8

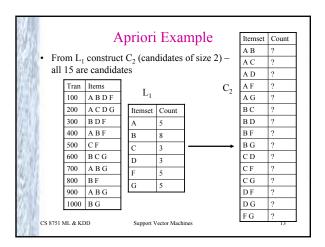
CS 8751 ML & KDD

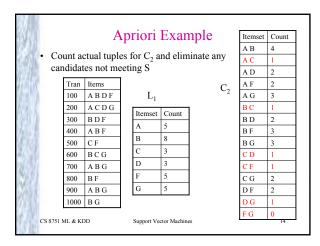


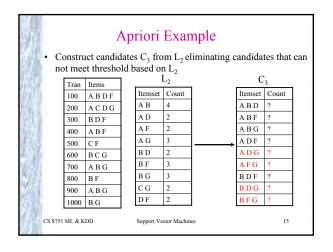


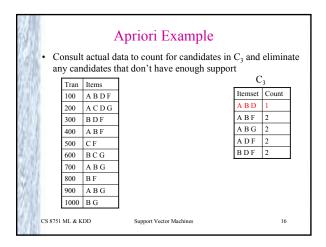


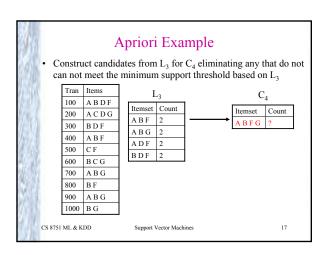


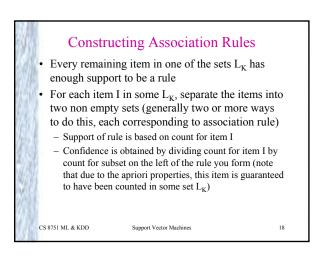


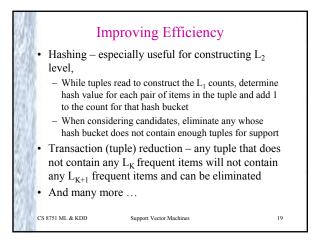


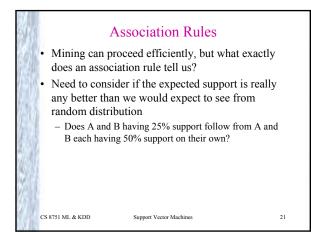












181	Other Variations			
- 110	Quantitative Association Rules			
	Age [X,3139] ∧ Income[X,\$40K\$50K] ⇒ Buy [X,Computer]			
69	<ul> <li>Key question, how to construct bins (what quantitative values together)</li> </ul>	go		
68/A •	<ul> <li>Multilevel Association Rules         <ul> <li>May not be a lot of support for very specific things (very few case of buying Dell Pent 3 1 GB memory and Logitech Mouse)</li> </ul> </li> </ul>			
	<ul> <li>But there may be support as you consider the general categoriditems (Dell Pent 3 is a computer, Logitech is a type of mouse, of support for buying Computer and Mouse together) – can ha multilevel hierarchy and look for rules at various levels of that hierarchy</li> </ul>	lots ve a		
CS	8751 ML & KDD Support Vector Machines			