**Cloud Computing for Data Analysis**

**VIDEO CASE 07 : Association Rules Market Basket Analysis**

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Watch following videos:

**Video 1:** <https://youtu.be/GqwrAJPP4mk>

**Video 2:** <https://www.youtube.com/watch?v=TcUlzuQ27iQ>

**Video Case Questions:**

1. What is Market Basket Analysis?
2. - Market-Basket analysis is a key technique majorly used by large retailers to find the relationships between various items purchased together by the customers.

* Data mining is performed on the products which are usually bought together by the customers. It helps the retailers to understand the relationship between the items that people are buying.
* The marketers could use this analysis to understand what kind of products should be offered to their existing customers.
* Market-Basket analysis on large customer data is mainly used to take business decisions like what discounts to be applied on what products etc.

1. Mention some disadvantages of Apriori algorithm for longer transactions.
2. - The Apriori algorithm assumes that the transaction database resides in the memory due to which it needs multiple database scans which makes it less efficient.

* The Space complexity and Time complexity is very high for longer transactions.
* If the data set is large, then too many rules will be generated as it will generate the candidates per level and calculate the association rules accordingly.

1. In what other domains Market Basket Analysis can be applied?
2. - Fraud detection

* Analysis of Credit card transaction
* Analysis of Calling patterns
* Product placement and customer behavior