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YOUVA

BI Assignment 1 & 2

* Aim :- To perform the multidimensional data analysis on given dataset.
  - Data Visualization of given dataset

* Theory :-
  - Brief theory on multidimensional cube and various operation on cube.

A cube is a multidimensional structure that contains information for analytical purposes; the main constituents of a cube are dimension and measure. Dimensions define the structure of the cube that you use to slice and dice over, and measure provide aggregated numerical value of interest to the end user. As a logical structure, a cube allows a client application to retrieve values of measure, as if they were contained in cells in the cube; cells are defined for every possible summarized value. A cell in the cube is defined by the intersection of dimension members and contains

the aggregated values of the measure at that specific intersection.

- Various operations on cube are;-

1] Roll-up
2] Drill-down
3] Slice and dice
4] Pirot (rotate)

1) Roll-up is also known as "consolidation" or "aggregation". The Roll-up operation can be performed in 2 ways.

1. Reducing dimensions
2. climbing up concept hierarchy

2) In Drill-Down data is fragmented into smaller parts. It is the opposite of roll up process. It can be done via
- moving down the concept hierarchy
- Increasing a dimension

3> Slice:
Here, one dimension is selected and a new sub-cube is created.

Dice:
This operation is similar to a slice. The difference in dice is you can select 2 or more dimensions that result in the creation of sub-cube.

4> Pivot:
In pivot, you rotate the data axes to provide a substitute presentation of data.

* Input : Dataset
  - sample - coffee.chain dataset
  - sample - Superstore dataset
  - Top Baby Names Dataset

* output: Data analysis and visualization by using various measures

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* conclusion :-
Hence learned the data analysis and visualization using Tableau tool.

* FAQ

q List out widely used BI tools in Industry.

=> 1. Datapine
2. SAS Business Intelligence
3. clear Analytics
4. SAP business objects
5. DOMO
6. microstategy
7. Good Data
8. IBM cognos analytics

q write down any two applications of BI.

=> 1. sales Intelligence
2. visualization
3. reporting
4. Performance Management