

A miniworld scenario..

- A supermarket chain has stores at various locations. Each store sells multiple items and they are bucketed into different categories, types, usage, etc. These items, supplied by several vendors, are procured by the head office and then they are distributed to stores based on the demand and affordability of these items. therefore, not all stores may sell all items.

The store manager, and her upline would like to analyze the information for business insights and decisions so that they can plan better items arrangement, manage logistics and supply chain, campaign, promotions, loyalty programs, etc. and also would like to perform sales analysis and comparison w.r.t. last weekend/month/quarter/year/... or festival.

- Can you design a data model (*dimension* and *fact* tables) for data analysis, and write the following SQL queries using cube and rollup operations?
 - Analyze the total sale of each store by item, supplier.
 - Rollup the same information by item category and festival/quarterly/yearly.