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Explain OLAP operations in detail with examples.

Discuss Star Schema, Snowflake Schema

and Fact Constellation schema

with example

Illustrate ETL process.

→ DW features:

- non-volatile
- heterogeneous data
- scalability
- easy access

OLAP standards for Online Application

Processing. The steps of OLAP

are:

- Algebraic approach
- Holistic approach
- Distributed approach.

ALGEBRIC : It processes the data in algebraic manner where mathematic operations like mean, median, mode are applied on the data.

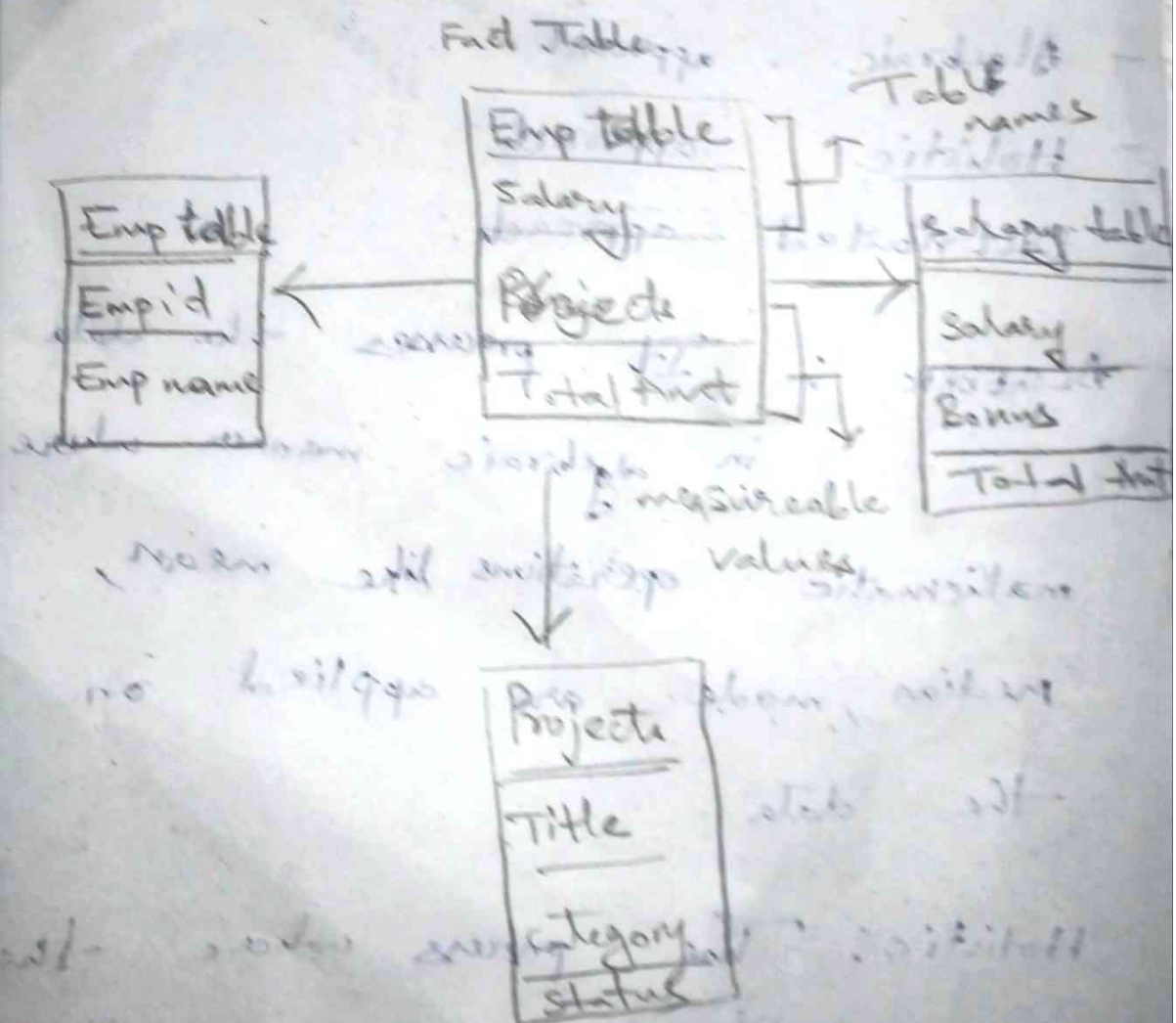
Holistic: The process where the data is processed all

at a time.

Distributed : In this the data is split into parts and processed in sub-parts later all the sub-parts are combined.

2nd Star schema:

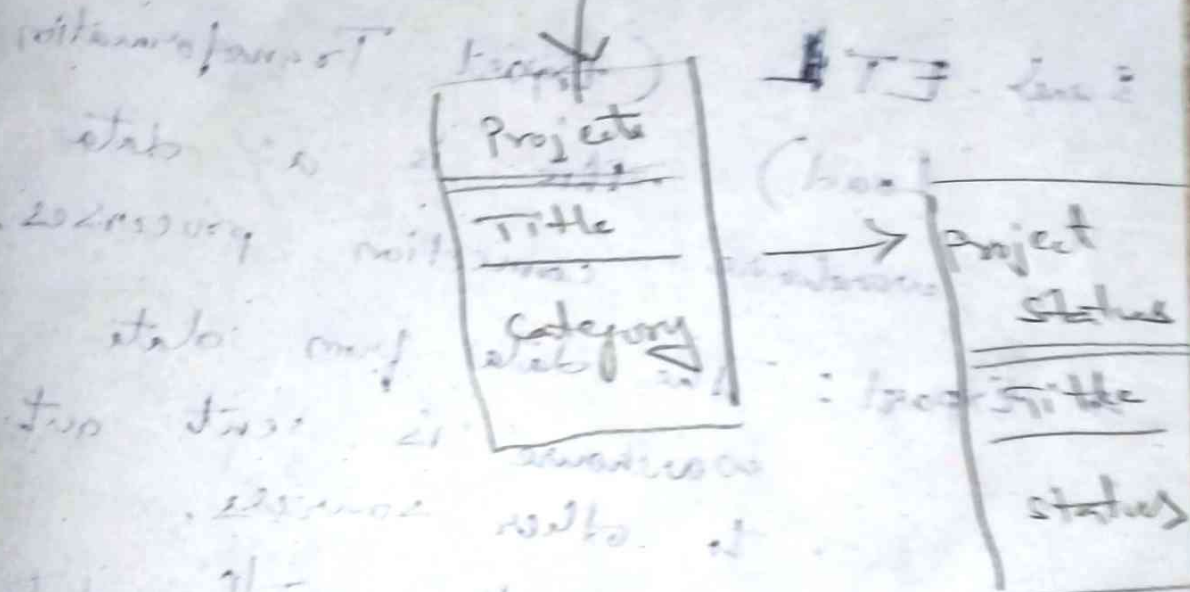
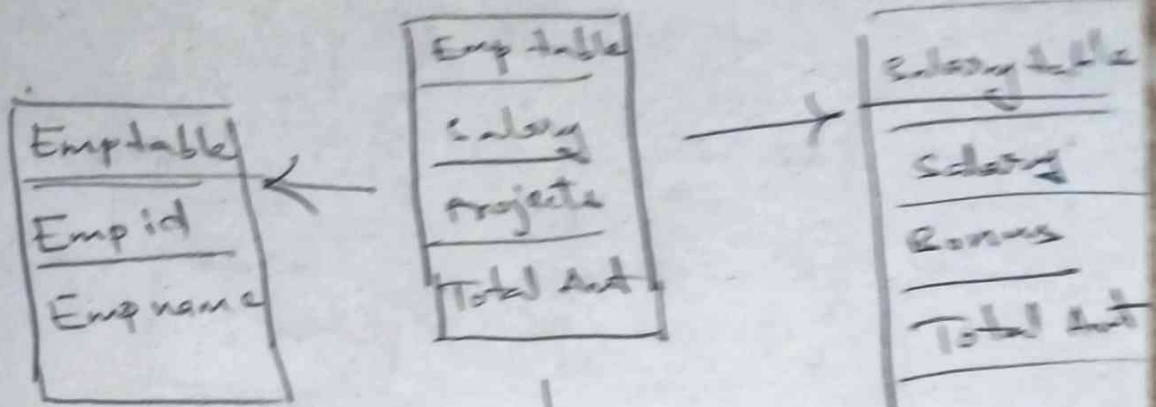
It has a single fact table which multiple dimension tables are connected to.



Snowflake schema:

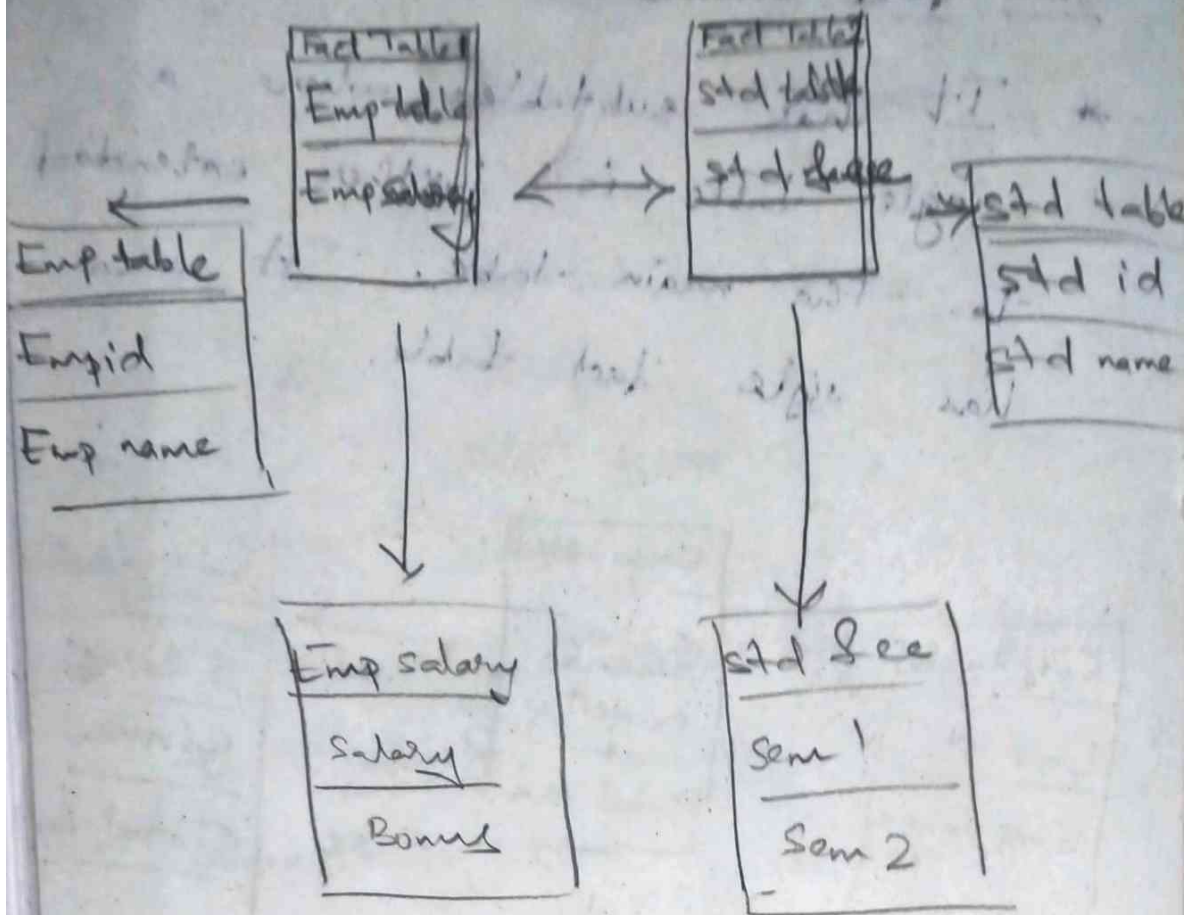
- * It has subtables where a single table is further extended to the main table. It also has single fact table.

Fact Table



Fact Constellation:

- * It has multiple fact tables connected to data tables.
- * It looks like a galaxy forming multiple links between tables.



2 and **ETL** (Export Transformation Load) - this is a data warehouse connection processes.

* **Export:** The data from data warehouse is sent out to other source.

* **Transformation:** where the data is converted from one form to other.

* **Load:** The data from other warehouses is loaded into our local data.