Imagine you work for **SuperMart**, a **chain** of **supermarkets** across the country. You want to make **business decisions** based on **sales**, **customer behavior**, and **product performance**.

- **What Happens Daily (OLTP Systems):**
- Every day, in each SuperMart store:
- Customers buy items.
- New items are added to the inventory.
- Discounts are updated.
- Staff clock in/out.
- All of these actions are stored in **transactional databases** (OLTP), used for day-to-day operations.

- **Business Questions Management Wants to Ask:**
- What are the **top-selling products** this month?
- Which store is generating **the most revenue**?
- What time of day do we get **most customers**?
- Which **category of products** is underperforming?
- How has our revenue grown over the **past year**?
- The OLTP systems aren't built for these **heavy analytical queries** — they slow down or can't give insights quickly.

- **Enter the Data Warehouse**

- To answer these questions, you build a **Data Warehouse**:

- **Extract**:
  - Pull data from all 50 SuperMart stores every night.
  - Include data like: sales, product info, staff schedules, promotions.

- **Transform**:
  - Clean the data: correct formats, remove duplicates, fix missing values.
  - Standardize categories: e.g., "Soft Drink" and "Soda" become one.

- **Load:**
- Store the cleaned data into the Data Warehouse.
- Organize it by dimensions like: date, product, store, region, etc.
- **Analyze**:
- Use tools like Power BI or Tableau to:
- Create dashboards showing sales trends.
- Drill down by region, time, or product type.
- Forecast future sales.

- **Result**:
- *Now the CEO can log into a dashboard and say:*
- "Oh, our Kathmandu stores sold 20% more in March. Looks like rice and flour were the top drivers."
- And the **Marketing team** can decide:
- "Let's run a promotion for underperforming products in Pokhara."

- Feature   OLTP (in-store systems)   Data Warehouse
- Focus   Daily operations   Business insights
- Data freshness   Real-time   Periodically updated
- Users   Cashiers, inventory clerks Managers, analysts
- Tools   POS systems, spreadsheets   Dashboards, SQL, BI tools