

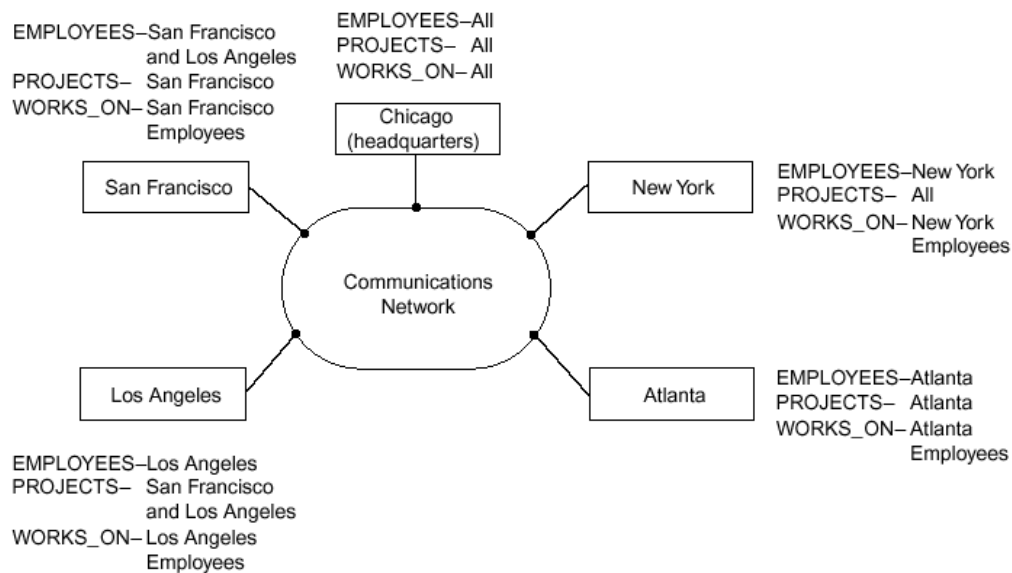
## Hints for Assignment 1

### Task1: Distributed Database Design

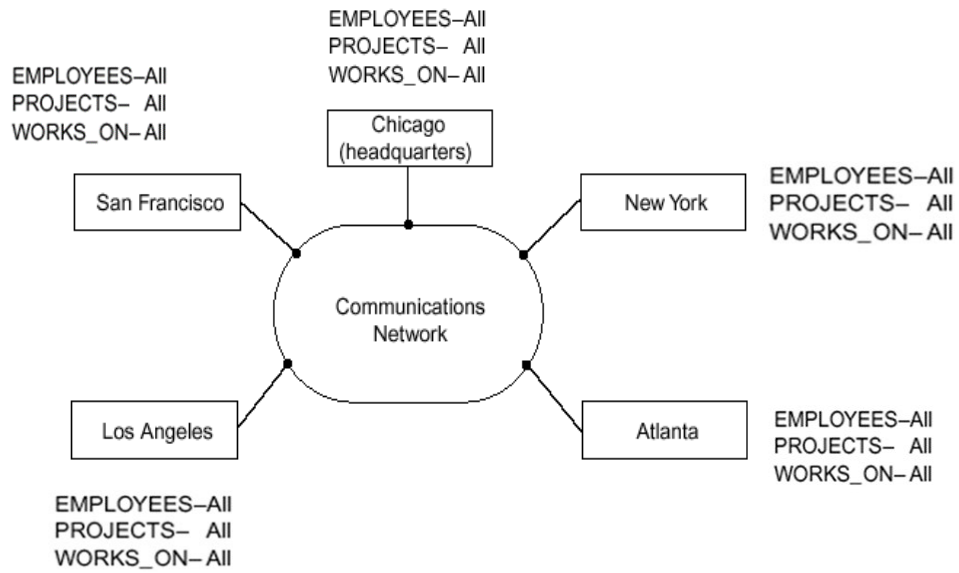
#### a) Data Distribution Evaluation: Option with reasons

- Homogeneous or Heterogeneous DDBMS (refer to lecture notes)
  - o System Implementation
  - o Data Management in location distribution
  - o Future Business Growth
  - o Cost and Maintenance
- Data can be stored
  - o Central
  - o Replicated
  - o Partitioned
  - o Hybrid

#### b) Data Distribution Scheme (Sample Template)

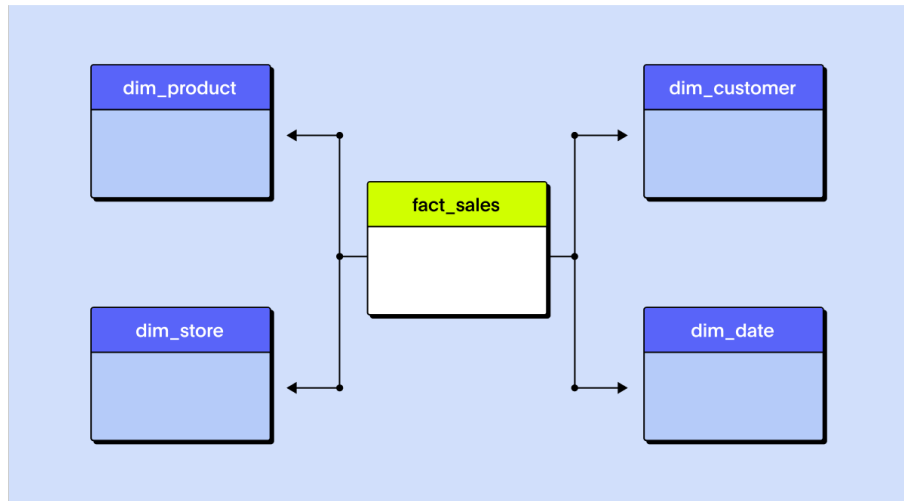


(or Replicated Database if you choose replicated – Sample Template)



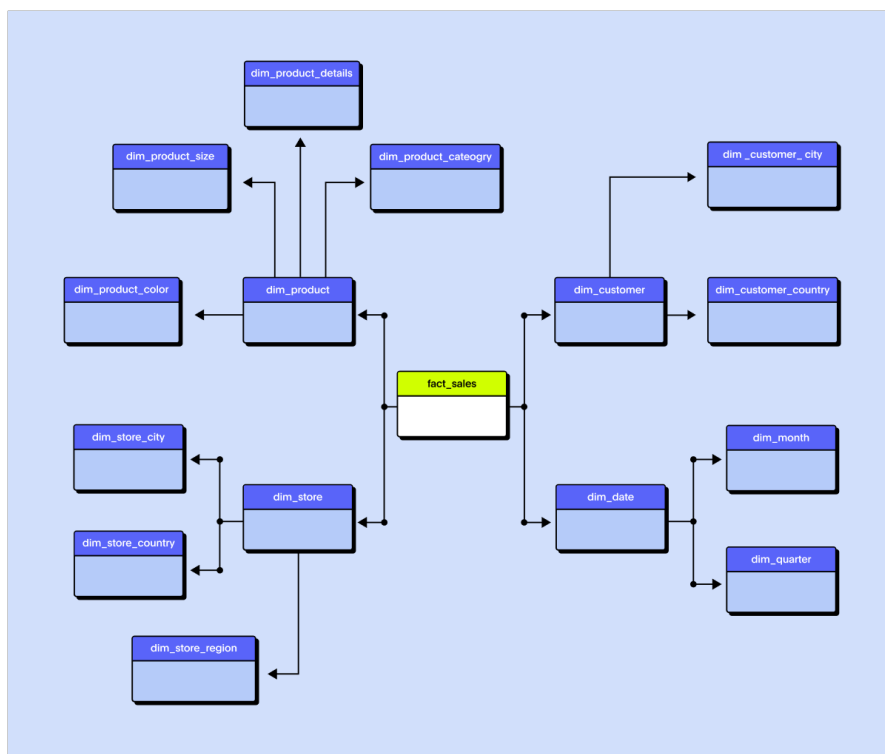
## Task2: Data Warehouse Design (layout sample)

### a) Star Schema (Demoralization)



Highlight PK. Name FACT table and dimension tables

### b) Snowflake Schema (Normalization)



### Task 3a) Grade Report :

After normalization tables, you can give some samples of data into different tables. You can prepare Grade Report by using PL/SQL procedure with IN/OUT parameters:

- 1) List of procedure codes
  - 2) Sample of procedure call
  - 3) Output Layout of reports
- 
- I) Final Mark Sheet for Students
  - II) Statistical Report on Courses
  - III) Location-based Analysis
    - a. Student Enrolment in specific course by different location (state/city/postcode)
    - b. Student performance by different location (state/city/postcode)

### Task 3b) Active Rules using triggers:

- 1) List of trigger codes
  - 2) Sample outputs when triggers are fired or not fired
- 
- I) Trigger to protect any changes (insert/update/delete) on student and enrolment tables from Friday 5pm to Monday 8am. Display appropriate messages.
  - II) Trigger to stop enrolment if capacity limit reaches. Display appropriate messages.