



SNS COLLEGE OF ENGINEERING
Coimbatore-107

UNIT III

DATA MINING Data-Types of Data

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TYPES OF DATA

- Relational database
- Data warehouse
- Transactional Database



Database Data

- DB system or DBMS – consists of
 - interrelated data, known as database &
 - Set of software programs to manage and access the data
- Software programs provide mechanisms
 - for defining DB structures and data storage
 - For specifying and managing concurrent, shared, or distributed data access
 - For ensuring consistency and security of information stored despite system crashes or attempts at unauthorized access



Database Data

- Relational DB is a collection of tables, each with unique name.
- Each table consists of set of attributes (columns or fields) and large set of tuples (records or rows)
- Each tuple represents object identified by unique key and set of attribute values.
- Example: Entity-Relational (ER) Data Model

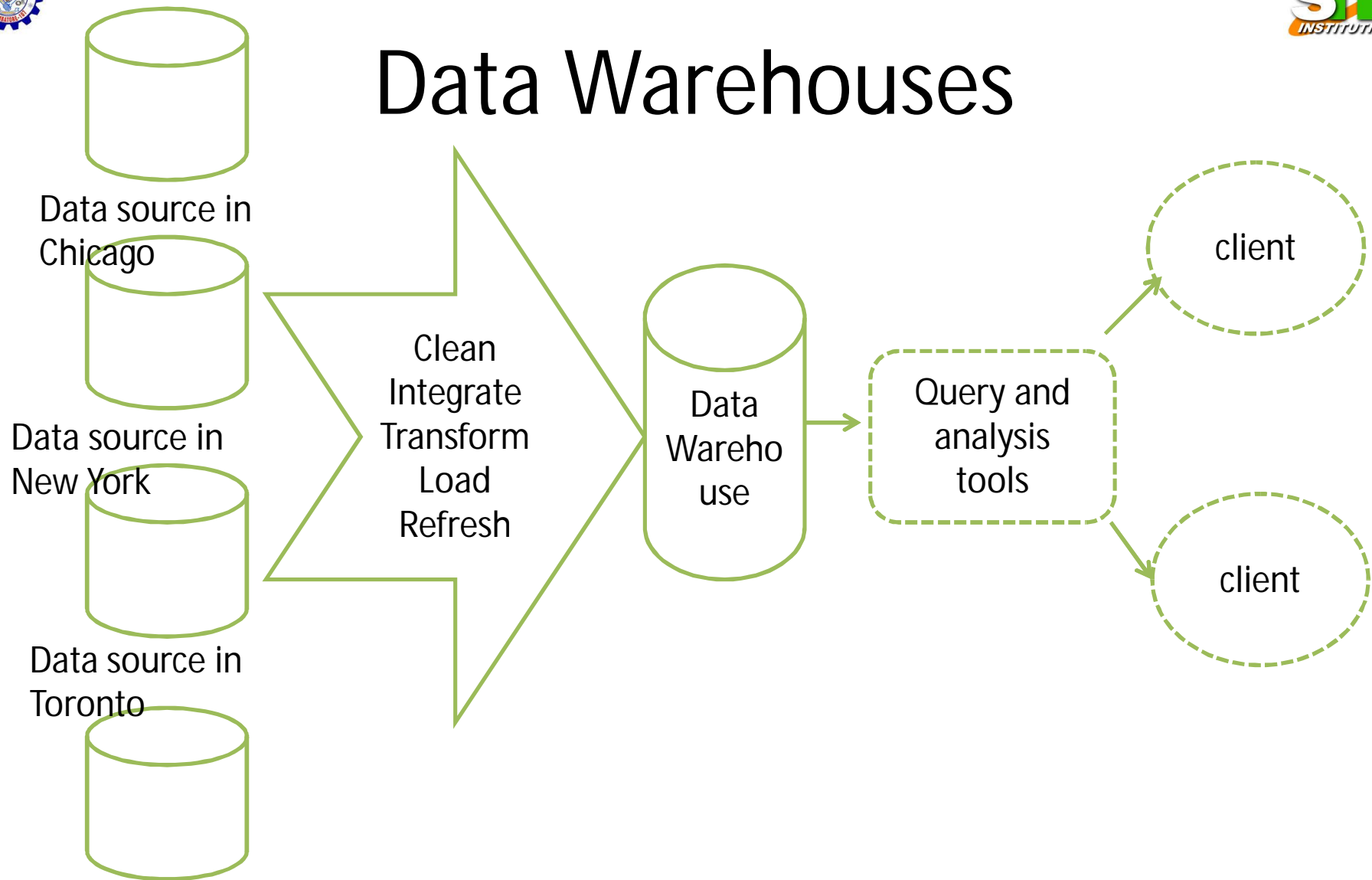


Data Warehouses

- Repository of information collected from multiple sources, stored under a unified schema, reside at a single site
- Constructed via
 - process of data cleaning
 - Data Integration
 - Data Transformation
 - Data loading
 - Periodic data refreshing



Data Warehouses



Data source in Vancouver

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Data Warehouses

- For decision making,
- Data in warehouse are organized around major subjects
- Eg: customer, item, supplier
- Historical perspective
- Summarized data
- Data cube – each dimension corresponds to attribute



Transactional Data

- Each record in transactional DB captures transaction like customer's purchase flight booking, user's click on a web page)
- It includes unique transaction identity number (trans_ID) and a list of items making up the transaction I.e items purchased
- Transactional DB may have additional tables, which contain other information related to transactions like item description, information about salesperson or branch



Other kinds of data

- Time-related or sequence data (eg: historical records, stock exchange data)
- Data streams (video surveillance, sensor data)
- Spatial data (maps)
- Engineering design data(design of buildings)
- Hypertext and multimedia data (text, image, audio, video)
- Graph and networked data(social & information networks)
- Web (internet)



Thank you