



Database System in Healthcare

Overview of Database and DBMS

Lecture: 1

Database is a collection of information that is organized so that it can easily be accessed, managed, and up dated. In one view, databases can be classified according to types of content: bibliographic, full-text, numeric, and images.

In computing, databases are sometimes classified according to them organizational approach. The most prevalent approach is the relational database.

Computer databases typically contain aggregations of data records or files, such as sales transactions, product catalogs and inventories, and customer profiles.

Typically, a database manager provides users the capabilities of controlling read/write access, report generation and analyzing usage.

Databases and database managers are prevalent in large mainframe systems, but are also present in smaller distributed workstation and mid-range systems such as the AS/400 and on personal computers.

SQL(Structured Query Language) is a standard language for making interactive queries from and updating a database such as IBM'sDB2, Microsoft's SQL Server, and database products from Oracle, Sybase, and Computer Associates.

A wide-angle photograph of a long, straight asphalt road stretching towards the horizon. The road is flanked by flat, greenish-brown fields. The sky is filled with large, dramatic clouds, with a mix of dark and light tones. The overall color palette is dominated by blues, greens, and greys.

02

Database System Applications

Database System Applications

Databases are widely used. Here are some representative applications

Banking

For customer information, accounts, and loans, and banking transactions.

Universities

For student information, course registrations, and grades.

Credit card

For purchases on credit cards and generation of monthly statements.

Sales

For customer, product, and purchase information.

Human resources

For information about employees, salaries, payroll taxes and benefits, and for generation of paychecks.

03

Types of Database



SWOT Analysis

Lorem Ipsum is simply dummy text of the printing and typesetting industry



Relational DB

The most prevalent approach



Tabular DB

which data is defined so that it can be reorganized and accessed in a number of different ways



Object-oriented DB

database is one that is congruent with the data defined in object classes and subclasses



Distributer DB

can be dispersed or replicated among different points in a network.

R

T

O

D

An aerial view of a city with a blue-green overlay. The image shows a dense urban environment with various buildings, streets, and a yellow taxi. The text is overlaid on the image.

04

Database management system (DBMS)

Database management system (DBMS)

is a collection of interrelated data and a set of programs to access those data. The collection of data, usually referred to as the database, contains information relevant to an enterprise.

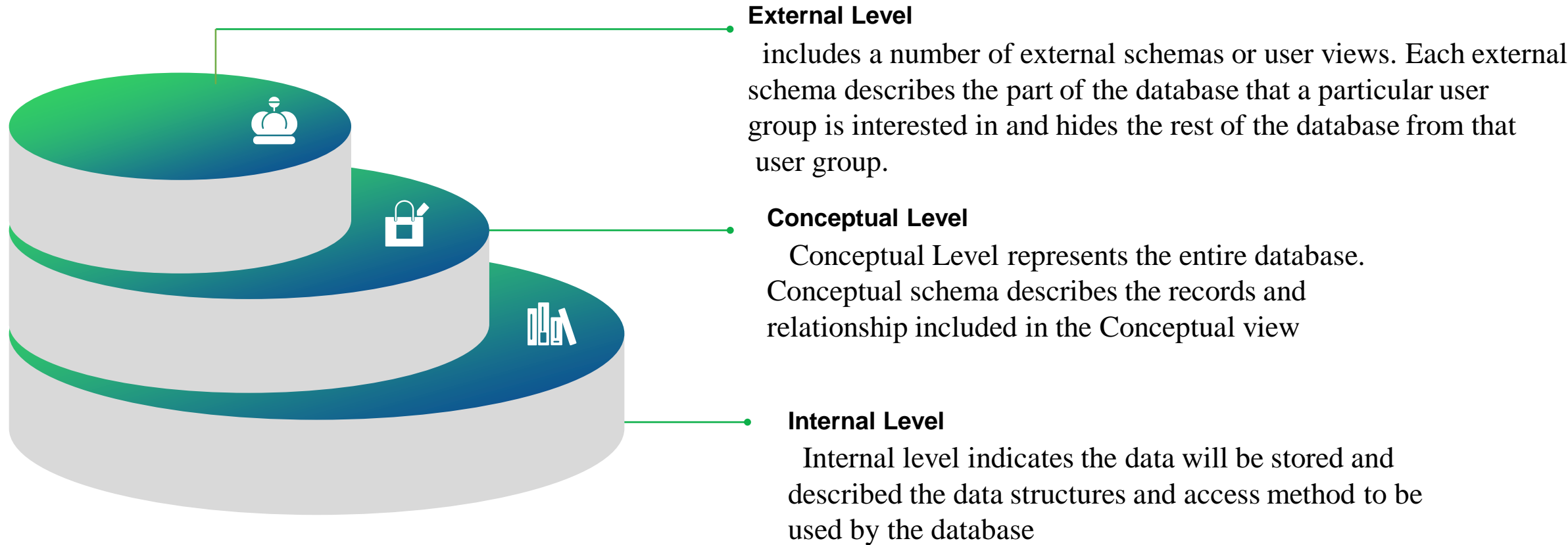
- The primary goal of a DBMS is to provide a way to store and retrieve database information that is both convenient and efficient.
- Database systems are designed to manage large bodies of information
- Management of data involves both defining structures for storage of information and providing mechanisms for the manipulation of information
- the database system must ensure the safety of the information stored, despite system crashes or attempts at unauthorized access.
- If data are to be shared among several users, the system must avoid possible anomalous results.



05

Architecture of DBMS

Architecture of DBMS



05

Components of DB System

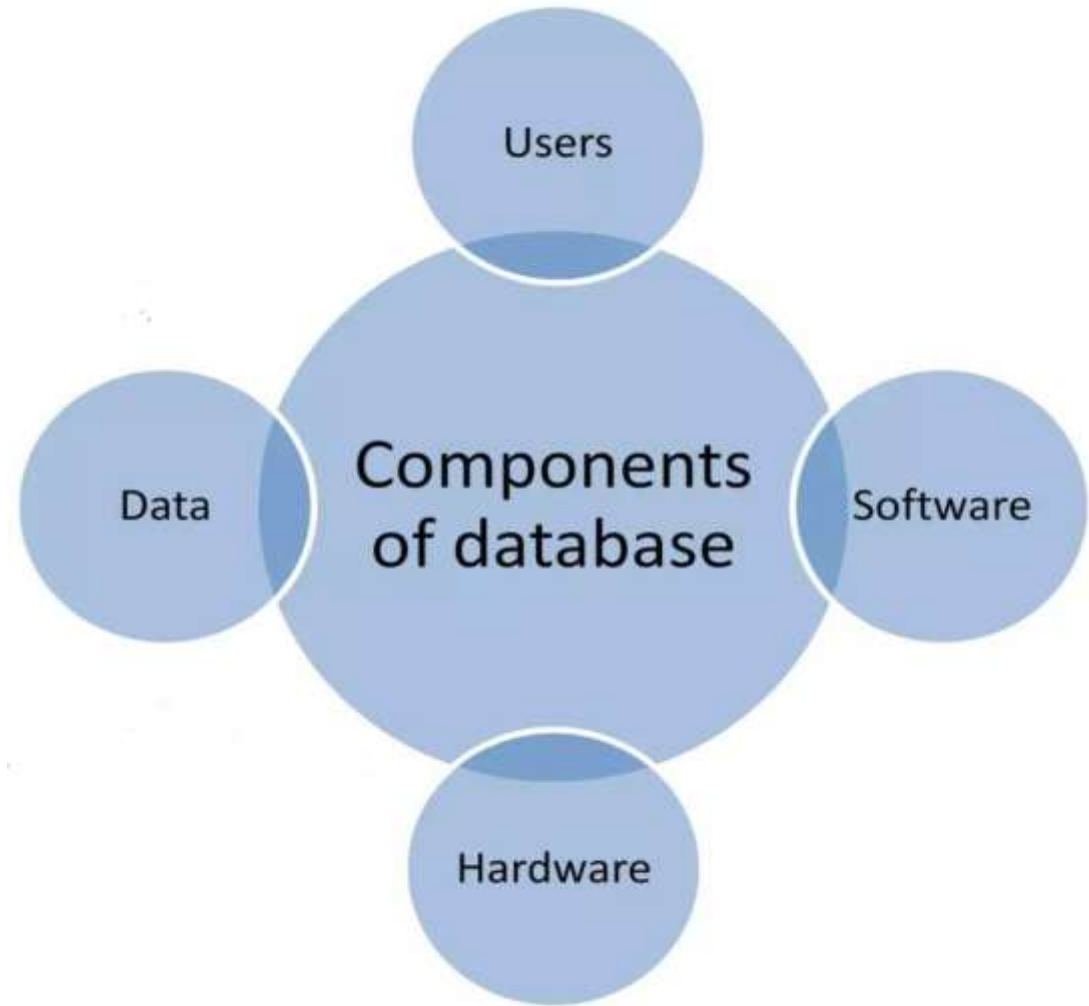


Users- People who interact with the database:

- Application Programmers.
- End Users.
- Data Administrators.

Software- Lies between the stored data and the users:

- DBMS.
- Application Software. - User Interface.



Hardware- Physical device on which

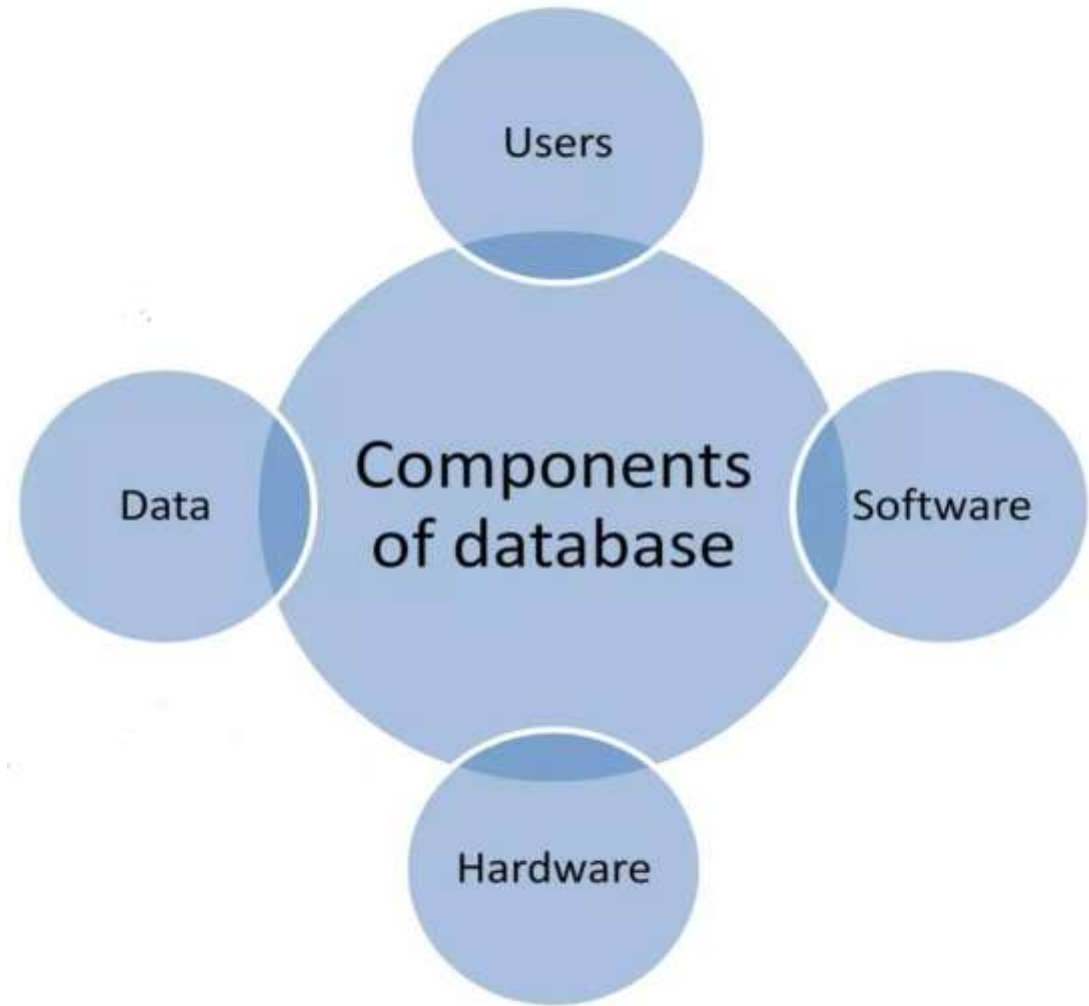
e.g.:

- Computers, Disk Drives,
- Printers, Cables etc.

Data- numbers, characters, pictures.

e.g.:

Shri Shri Nilesh, 1008, India.



Advantage of DBMS



Disadvantage of DBMS

01 - Cost of Hardware and Software

02 - Cost of Data Conversion

03 - Database Damage

04 - Cost of Staff Training



Thank You

Do you have any questions!