

Database management system (DBMS)

Name - Shubham Raj

Emp. Id - 46179686

Database approach to Data Management

Database

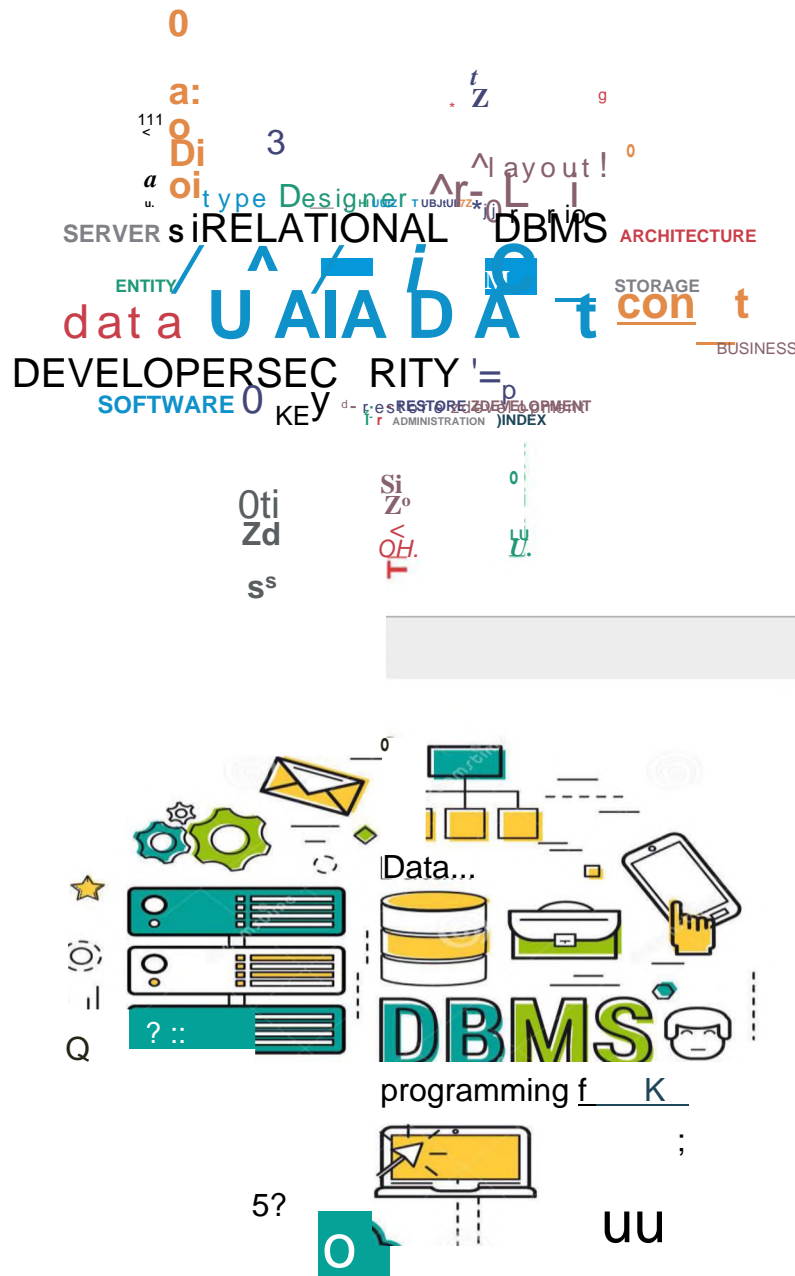
A database is a logically coherent collection of data with some inherent meaning, representing some aspect of real world and which is designed, built and populated with data for a specific purpose .

DBMS

A Data Base Management System (DBMS) is a set of software programs that enables users to define, create and maintain a database. The DBMS also enforces necessary access restrictions and security measures in order to protect the database.

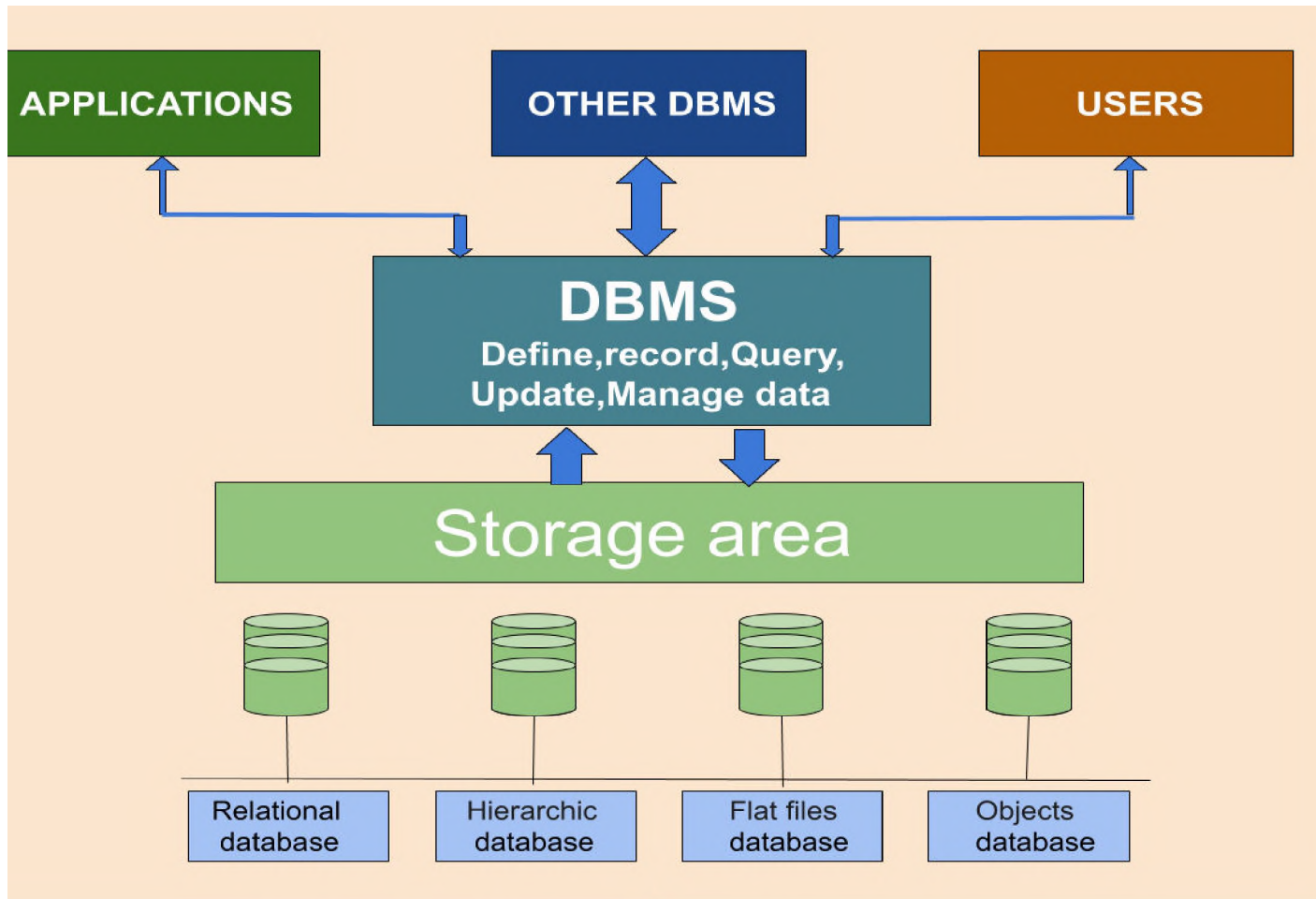
Database technology cuts through many of the problems a traditional file organization creates. Database serves many applications efficiently by centralizing the data and controlling redundant data. Rather than storing data in separate files for each application, data are stored so as to appear to users as being stored in only one location.

For example, instead of a corporation storing employee data in separate information systems and separate files for personnel, payroll, and benefits, the corporation creates a single common human resources database



Database Management System

DATABASE MANAGEMENT SYSTEM

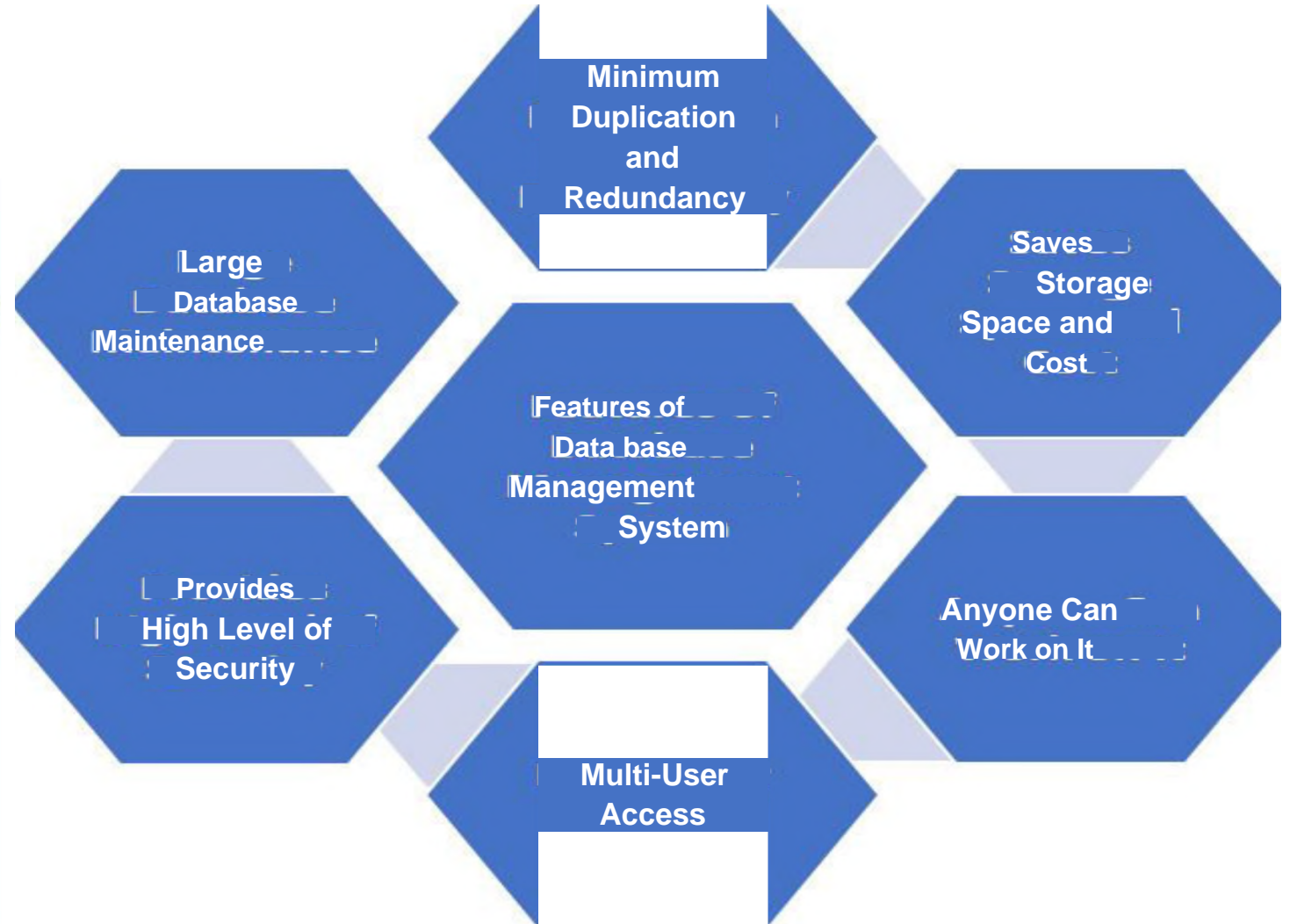


Google

amazon.in



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Why DBMS ?



DBMS



Without DBMS

Amazon: \$837,330.25

Apple: \$691,234.57

Alphabet: \$426,805.56

Microsoft: \$321,805.56

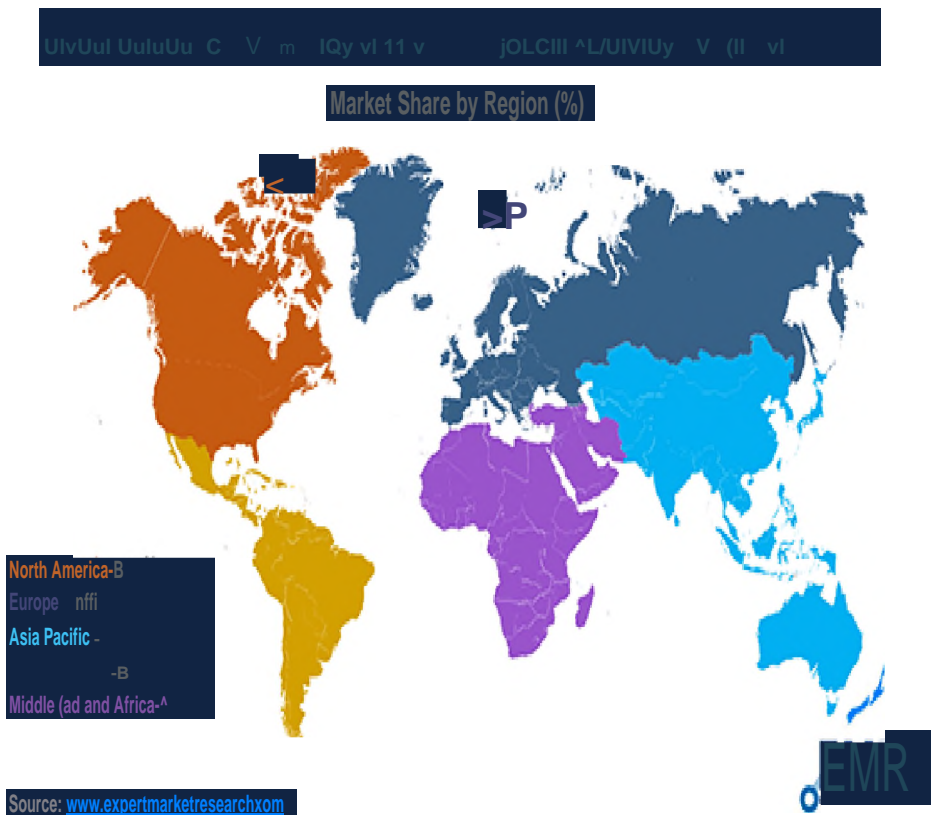
Facebook: \$201,936.73

Tesla: \$80,162.04

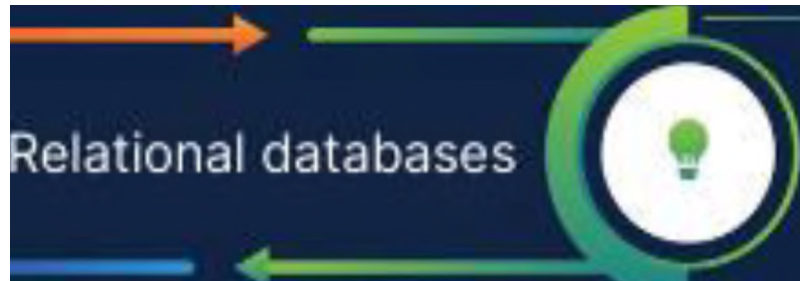
A
Minute
Without
DBMS



Characteristics



Real-world entity



Structured query language



ACID properties



Multiuser and concurrent access





INDIAN RAILWAY E TICKET BOOKING

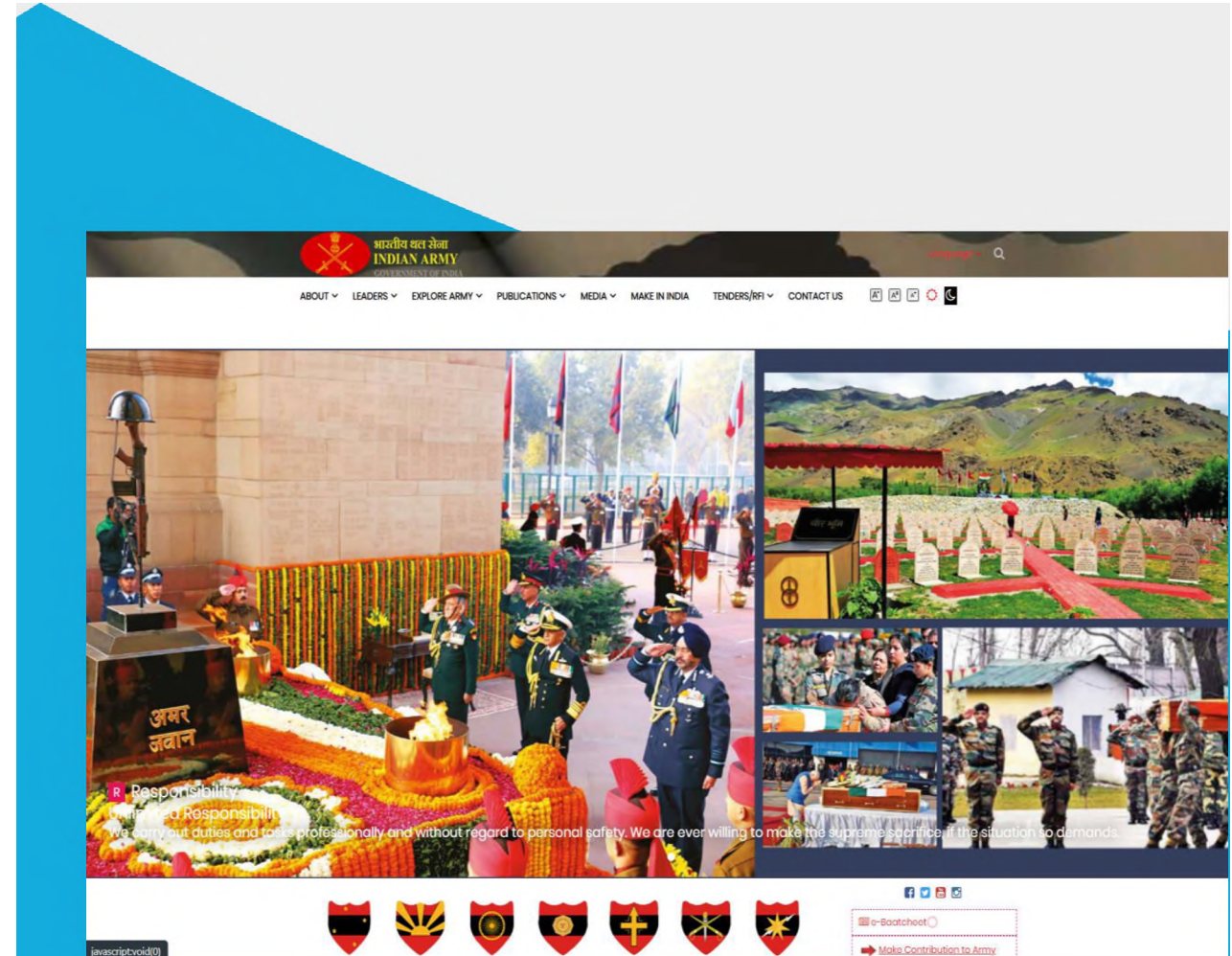
IRCTC



The screenshot displays the IRCTC website interface. At the top, there is a navigation bar with links for LOGIN, REGISTER, AGENT LOGIN, CONTACT US, ASK DISHA, ALERTS, and a date/time stamp. Below this is a secondary bar with categories like IRCTC EXCLUSIVE, TRAINS, BUSES, FLIGHTS, HOTELS, HOLIDAYS, LOYALTY, MEALS, PROMOTIONS, and PREMIUM PARTNER. The main content area features a 'BOOK TICKET' form with the following fields and options:

- From:** A text input field with a dropdown arrow.
- To:** A text input field with a location pin icon.
- DD/MM/YYYY *:** A date selection field showing 27/09/2021.
- All Classes:** A dropdown menu.
- GENERAL:** A dropdown menu.
- ☐ Divyaang Concession
- ☐ Flexible With Date
- ☐ Train with Available Berth
- ☐ Railway Pass Concession
- Search:** An orange button.

Below the form, there is a small text block providing information about train availability and booking rules. On the right side of the page, there is a large image of a train on a track with the text 'INDIAN RAILWAYS' and 'Safety | Security | Punctuality' overlaid. At the bottom right, there is a 'DEALS OF THE DAY' banner.

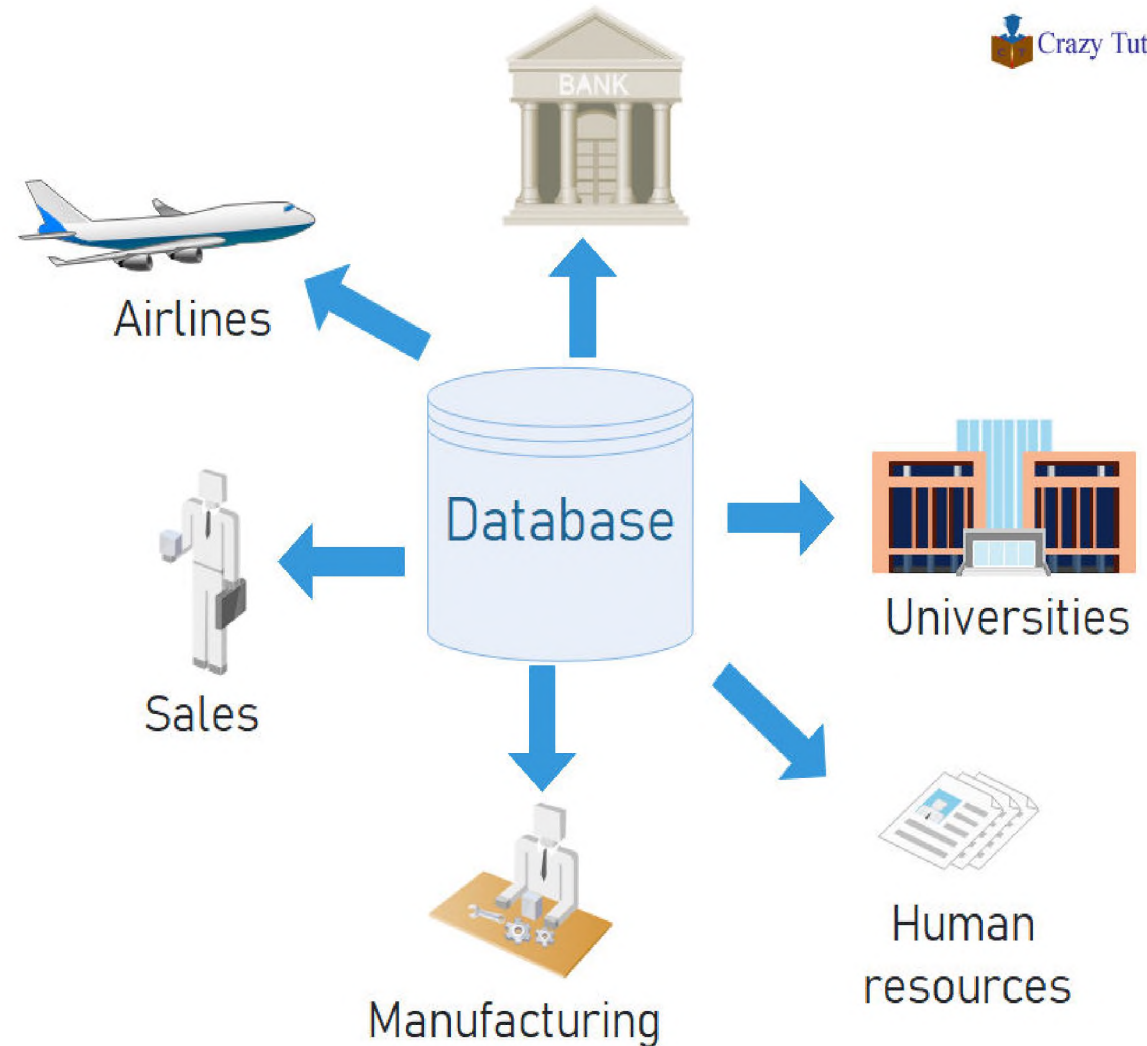


Applications of DBMS



DATABASE SYSTEM OF

facebook



Thank-you

Any questions?