**What is Data?**

Data is defined as facts or figures, or information that's stored in or used by a computer.

An example of data is information collected for a research paper.

An example of data is an email.

**What is Database?**

A database is a collection of related data.

For example, consider the names, telephone numbers and addresses of people we know.

**University Database Example**

Add new students, instructors, and courses

Register students for courses, and generate class rosters

Assign grades to students, compute grade point averages (GPA)

Social media company such as Facebook which has more than billion users. The database has to maintain information on which users are related to one another as friends, postings of each user and other information needed to maintain website.

Another example of large commercial database is amazon.com. It contains data for over 60 million active users, millions of books, electronics, apparel and other items.

**What is DBMS?**

A 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 Applications:**

Banking: transactions

Airlines: reservations, schedules

Universities: registration, grades

Sales: customers, products, purchases

Online retailers: order tracking, customized recommendations

Manufacturing: production, inventory, orders, supply chain

Human resources: employee records, salaries, tax deductions

Databases can be very large.

Databases touch all aspects of our lives.