CptS 415 Big Data

### Relational DBMS

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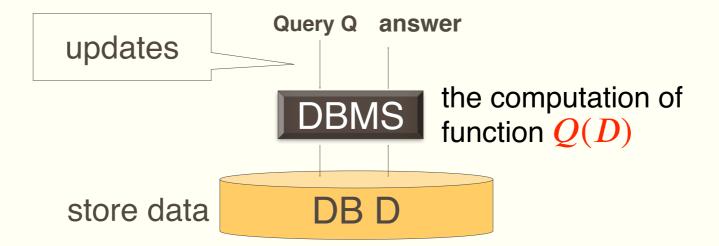
# Database Management System (DBMS)

#### Database

A collection of data containing information about one or more relations

#### DBMS

A software package designed to store and manage databases



## Why DBMS?

- Query:
  - Ability to efficiently retrieve or update data using a simple query language
- Scale:
  - Ensure data can scale to large volumes over time
- Availability / Durability:
  - Ability to manage backups and restore to ensure high availability of data
- Access Management:
  - Ability to set different permissions for different users of data and DBMS

## Popular Relational DBMS

- Enterprise:
  - Oracle
  - Microsoft SQL Server
  - IBM DB2
- Open Source:
  - MySQL
  - PostGreSQL
  - MariaDB

### Relational DBMS Topics

