Determine The Goal Of The Database

Relational Database Design

Session Outline

- Why we need to determine the goal of the database as the first step in designing it

Goal of the Database

- The first step to designing a database is to consider the goal
- What is the goal of the database?
- What is it trying to achieve?
- What is the purpose?

Solution to a Problem

- More than just storing objects
- It is a solution to a problem
- For example, it’s not just to “store orders, products and customers for a store”
- It’s solving a problem: “to help the store keep track of their sales transactions”
- Thinking of it as a solution to a problem will help determine what to store and what the purpose is
- This is called the “scope”

Scope

- Thinking of it as a solution will help you define the scope
- Scope is the boundary or the limit of what the database is used for
- Databases can get very large and complicated, but shouldn’t be used to store everything
- Scope defines what is stored and what isn’t

Scope

- Defining the scope of the database is the next step
- What do you need to store?
- For example, a school may want to store information about:
  - Teachers
  - Students
  - Classes
  - Subjects
  - Exams and exam marks
  - Teacher's leave days and holidays
  - Teacher's pay
  - Student attendance
- This is a lot - you may not want to store all of this
- Depends on the goal of the database

What To Leave Out

- Sometimes you need to leave some things out
- Depending on the project you're working on
- It could be for your job, or a personal project
- Using the previous example:
  - you're creating an enrolment database to keep track of student enrolments
  - you may want to leave out teacher's leave, teacher's pay and student attendance
- Depends on the purpose of the application that uses it

Summary

- A database should be used to solve a problem
- Working out what problem it is solving will help determine what is being stored
- Scope is what is included and excluded from your database
- It’s common to leave things out of your database, depending on your application or other requirements

Actions

1. Answer the question about your database: “What is the goal of this database, and what is it trying to achieve?”

What's Next?

- How current systems need to be considered