Identifying Entities

Relational Database Design

Session Outline

- How to identify the entities for our database

- Introduction to the example database for our course

- Start using MySQL Workbench software

Entities

- The first step to putting together the tables for a database is to identify the entities

- An entity is something we want to store data about

- We'll use an example for this course – student enrolment database at a university

- You can also do this with your own database
  - Work project
  - Personal project
  - Anything else

- We're going to use the MySQL Workbench software

What Do We Need To Know?

- Identify the entities – what do we need to know about?
- Start with the goal
- Using our example
- "To help a university keep track of the students that have enrolled, what subjects they are taking, and the teachers of those subjects"

Entities

- How do we identify the entities?

- What do you want to store?

- What defines our database

- What objects or things exist in this area?

Look For Nouns

- A good way to identify entities is to look for nouns in our goal statement
- Noun = thing or item
- "To help a **university** keep track of the **students** that have enrolled, what **subjects** they are taking, and the **teachers** of those **subjects**"
- Nouns are bolded
- University
- Students
- Subjects
- Teachers

Our Entities

- Use the singular version of the word – student instead of students
- Our entities:
- University
- Student
- Subject
- Teacher

- Doesn't need to be a full list now, we can add to it later

MySQL Workbench

- Let's add these entities to our MySQL Workbench file

Summary

- Entities are things that we want to store data about
- The first step is to identify our entities
- Looking for nouns in our goal statement is a great place to start
- Use the singular form of the word rather than plural

Action

1. Look at your goal statement for your database (which you may have written in an earlier lesson)

2. Identify the nouns in this sentence

3. Convert them to entities by removing duplicates and renaming them to singular form

What's Next?

- Defining the attributes for these entities