Foundation Concepts

What is a Model?

What is a Model?

- Models represent something

  - Airplane model – a small version of an airplane represents an airplane
  - Mathematical model – math equations represent real behaviors
  - Data model – a set of diagrams that represent data in a system

- All of models help one understand the thing being modelled
- Some models have the added benefit helping create the actual thing being modelled

Different types Data Models

- Conceptual Data Model (beginning)
  - Helps define a database without any knowledge of a database's target system
  - The focus is solely on the business processes and the data it needs
  - We will be created ER Models using Chen's notation
  - Why is conceptual modelling necessary?

- Logical Data Model (middle)
  - A more specific model targeted around the **TYPE of DBMS** the system may be deployed on

- Physical Data Model (end)
  - An even more specific model created for the *actual* hardware a database will be deployed on

- We will be creating *Relational Models* for the Logical and Physical Models we build
  - Why?