



# Fundamentals of Data Management

## Credit Tasks 3.2.1: Entity Relationship Modelling

### Overview

In this tutorial, you will practice reading and analyzing user requirements / business rules and design an Entity Relationship Model and present it in an Entity Relationship Diagram.

### Purpose

Learn to read and analyse user requirements and design ER model.

### Task

Read, analyse and design the ER Model for the business scenarios presented in the tasks below. You can choose ER Diagrams (Chen or Crow's feet) or UML diagrams to show your solutions.

### Time

This task should be completed in your third lab class and submitted for feedback in the third lab.

### Resources

- Connolly & Begg, Database Systems, Chapters 12 and 16.
- Stephens, Beginning Database Design Solutions, <http://goo.gl/bRCaxF>

Online resources

- Chen notation tutorial

<http://creately.com/blog/diagrams/er-diagrams-tutorial/>

- Crow's feet notation tutorial

<http://www.w3computing.com/systemsanalysis/systems-entity-relationship-model/>

### Feedback

Discuss your solutions with the tutorial instructor.

### Next

End of Week 3 Tasks.

## Credit Tasks 3.2.1 — Submission Details and Assessment Criteria

Document your solutions to the tasks using a word processor or other suitable editor. Upload the document to Doubtfire as pdf. The tutors will discuss them with you in the lab. Consider the following user requirements which describe a MOVIE database system in a movie industry.

Each movie is identified by title and year of release. Each movie has a length in minutes. Each has a production company, and each is classified under one or more genres (such as horror, action, drama, and so forth). Each movie has one or more directors and one or more actors appear in it. Each movie also has a plot outline. Finally, each movie has zero or more quotable quotes, each of which is spoken by a particular actor appearing in the movie.

Actors are identified by name and date of birth and appear in one or more movies. Each actor has a role in the movie.

Directors are also identified by name and date of birth and direct one or more movies.

Production companies are identified by name and each has an address. A production company produces one or more movies.

Draw a diagram for the movie system above. Note that a good design will include several weak entities.

Document your solution and upload it.