CSCI UA.0060 Spring 2026

Assignment 3 – ERD

Deliverables

Upload a pdf with the answers to the questions below to the Github repository for this assignment.

Filenames should be FirstInitialLastName-Assign3.pdf. For example, John Smith's file would be JSmith-Assign3.pdf

Overall Requirements

Answer the questions detailed below. There are four points for the first exercise and six points for the second one.

Please make sure that you follow these rules before submitting your work:

1) The model must be produced using LucidChart.
2) All table names should be lower case with underscores separating words (for example, advanced_course)
3) All attributes must be in camel case (for example, firstName).
4) Table names should be singular and not plural (for example, course and not courses)
5) All diagrams must have a heading
6) Any assumptions being made should be clearly stated
7) Every relationship must be labelled
8) Every relationship must show its cardinality
9) No relationship lines should cross each other

Specific Requirements

1) Create an ER model for the following Travel Consulting company:

    The company has 12 different teams of consultants. Each team is named after an animal and handles a single region of the world (such as North America or Central Asia). Regions are categorized based upon geography and most common type of travel (such as Business or Adventure). Management may re-assign teams to different regions depending upon business

needs or time of year. Although, typically, consultants are only assigned to one team, sometimes they are assigned to other teams as well, to handle sickness or other resource shortfalls. Consultants take calls about customers' new travel needs or existing reservations. They log the calls they take and statistics are generated each month based upon the number of calls per day of each type and their duration.

1.1. Your model should reflect each of the entities and attributes that are described in this model. Primary and Foreign keys should be clearly denoted.
1.2. Your model should reflect each of the relationships needed to describe this company. Each relationship should be labeled and show its cardinality.
1.3. it is not necessary to add additional attributes for any of the entities unless they are needed to implement relationships.

2) Create an ER model for the following DVD rental company. I do understand that DVD rental companies don't exist anymore, but it used to be the way we (old folks) got movies!

The DVD rental company has several branches throughout the United States. The data held on each branch is the branch address made up of street, city, state and zip code, and the telephone number. Each branch is given a branch number, which is unique throughout the country. Each branch is allocated staff, which includes a manager. Each branch can only have one manager at any given time. The manager is responsible for the day-to-day running of a given branch. The data held on a member of staff is his or her name, position, and salary. Each member of staff is given a staff number, which is unique throughout the company. Staff members may be re-assigned to different branches but will only work at one branch at any given time.
Each branch has a stock of DVDs. Each DVD contains a movie. The data held on each movie is the imdbCode, title, category and the director. The imdbCode uniquely identifies each movie. In many cases, there are several copies of each DVD at a branch, and the individual copies are identified using a DVD number. The DVD number is unique throughout the company and each copy has a status indicator. A movie is given a category such as Action, Adult, Children, Drama, Horror, or Sci-Fi. The status indicates whether a specific copy of a DVD is available for rent. Before borrowing a DVD from the company, a customer must first register as a member of a local branch. The data held on a member is the first and last name, address, and the date that the member registered at a branch. Customers can be members of different branches at the same time. Each customer is given a member number, which is unique throughout all the branches of the company. Once registered with a branch, a member is able to rent DVDs, up to a maximum of ten at any one time. The data held on each DVD rented is the rental number, the full name and number of the member, the DVD number, title, daily rental cost (which is a standard rate for all copies of a DVD at a branch) and the dates the DVD is rented out and returned.

2.1 Your model should reflect each of the entities and attributes that are described in this model. Primary and Foreign keys should be clearly denoted.
2.2 Your model should reflect each of the relationships needed to describe this company. Each relationship should be labeled and show its cardinality.

2.3 it is not necessary to add additional attributes for any of the entities unless they are needed to implement relationships.

Grading Rubric

See Brightspace for Grading Rubric