

CSC2700 HW 1

Due Feb 6 (Thu) in class

Exercise 1 - CARS

Identify all entity types, attributes, relationship types and their degrees in the following case. Draw an entity-relationship diagram.

An organization makes many models of cars, where a model is characterized by a name and a suffix (such as GL or XL which indicates the degree of luxury) and an engine size.

Each model is made up from many parts and each part may be used in the manufacturing of more than one model. Each part has a description and an id code. Each model of car is produced at just one of the firm's factories, which are located in Tampa, Baton Rouge, Destin, New Orleans and Orlando - one in each city. A factory produces many models of car and many types of part although each type of part is produced at one factory only.

Exercise 2 - A UNIVERSITY

A university consists of several faculties. Within each faculty there are several departments. Each department may run a number of courses. All teaching staff are attached to departments, each staff member belonging to a unique department. Every course is composed of subcourses. Some subcourses are part of more than one course. Staff may teach on many subcourses and each subcourse may be taught by a number of staff.

Draw an entity-relationship model for this example. Show both cardinalities and optionalities. Put a question mark where the degree is not clear from the text. Don't assume anything; rather, write a list of questions you would have to find answers to complete the model.