ERD Assignment 1

Draw ER Diagrams for the following situations. Show the primary keys for each entity type. Use proper cardinality notation showing both the degree and obligatory or non-obligatory participation. For each entity type, make up two attributes in addition to the primary key. Draw your ER diagrams by hand or by any other means for now and submit scanned versions on Blackboard.

As we start doing bigger diagrams next week, I will introduce a tool to draw the diagrams – for now it will be a good idea for you to draw the diagrams by hand while you learn the concepts.

1. Each classroom has one projector or none. Each projector could be in a classroom or not.

2. Each actor stars in one or more movies. Each movie has one or more actors starring in it.

3. A hotel has many rooms and many pieces of furniture. Each room could have many pieces of furniture or none. Every piece of furniture has to be in one room.

4. A company has many machines. A machine requires many spare parts or none. Each spare part is meant for a specific machine. Each employee is assigned to maintain many machines or none. Each machine is assigned a specific employee for its maintenance.

5. A company sells many products. Each product belongs to one product line, but each product line could have many products or none. Each product line has an employee assigned as its product manager. Each employee could be the product manager for many product lines or none.