

Instructions to Students:

Draw an Entity relationship model for the following case study.

Learning Outcomes:

- Write good names and definitions for entities, relationships, and attributes
- Resolve many-to-many relationships
- Draw E-R diagrams for common business situations
- Demonstrate understanding of degrees of relationship
- Model different types of attributes, entities, relationships, and cardinalities

Instructions to Students:

Draw a detailed conceptual ERD representing all the organizational data that must be managed by the database system described below. The diagram should represent entities, relationships, attributes (PK and FK). Also where appropriate in the design show cardinality and constraints. Ensure you state any assumptions and carry out research to gain further understanding of the environment.

- (a) A large organisation has several car parks, which are used by staff.
- (b) Each car park has a unique name, location, capacity, and number of floors (where appropriate).
- (c) Each car park has car parking spaces, which are uniquely identified using a space number.
- (d) Members of staff can request the use of a car parking space. Each member of staff has a unique number, name, telephone extension number, and vehicle license number.
- (e) Represent all the ER models described in (a), (b), (c), and (d) as a single ER model. Provide any assumptions necessary to support your model.