

Tutorial Week 5 Databases and ER Diagrams

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Databases

1. What is meant by the logical data model of a database system?
2. Describe the main facilities that a DBMS will provide to an application.
3. What are the features of a relational database?
4. How is information related in a relational database?
5. What is the role of a primary key and a foreign key? Why must there always be a primary key?
6. The Entity Relationship diagram on the other side of the sheet shows a simplified schema for an airline booking system. Extract from the diagram, the requirements and constraints that resulted in the schema. Try to be as precise as possible in your specification.
7. Given the following description build a set of tables to hold the data. You will need to choose appropriate attributes for each of the main kinds of data.

A department runs a set of courses, each given by one or more lecturers, but having only one co-ordinator. Each course is held in several rooms – we only want to store the room number and nothing else about rooms. We also want to store which students register for which courses.