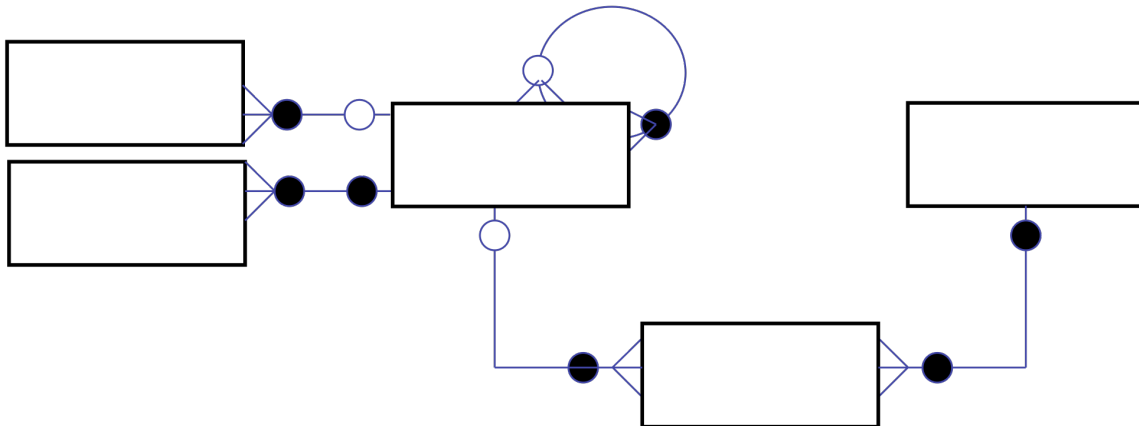
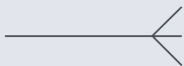


Functional Programming for Databases Project Specification

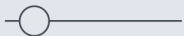
1. Download and install any Hugs (or equivalent) interpreter or compiler.
2. Using any appropriate DBMS (e.g. Oracle, MySQL) develop a relational database whose underlying conceptual data model is shown below in the form of a generic Entity-Relationship diagram. While the domain of your application has been left to your choice, the degrees/participation conditions need to be strictly conformed to. Apart from defining the relevant tables and enforcing all entity/referential integrity constraints, code and test three non-trivial queries.



NOTATION



one - to - many type of relationship



optional participation condition



compulsory

3. Re-develop your database within the constraints of object-oriented (or object-relational) paradigm. You are free to use any appropriate software.
4. Use Hugs (or similar system) to develop an equivalent functional database.
5. Compare the relational, object-oriented and functional expressions representing your structure definitions and queries.

Submission form:

A pdf file with narratives, figures, schemes, code, tests and conclusions emailed to stef@brookes.ac.uk
Confirmation of delivery by return.

Submission date: 30 July 2009