The Entity Relationship Model TUTORIAL

Work in groups of 2 or 3, ideally with members of your project group, and attempt questions 1 and 2.

Once you’ve finished the questions, make a start on your coursework. Bring along your ER diagram to the next tutorial.

# Q1 Bank Data Requirements

Draw an ER diagram for a bank with several branches. Staff work at a particular branch, and can have a supervisor who is another member of staff. Customers have bank accounts. An account is held in a particular branch.

* Customer information is a unique customer id, name consisting of first names and surname, address, occupation, gender, date of birth.
* Account information is a unique bank account number, type (current, deposit etc) and balance.
* Branch information is a unique branch number, a unique branch name, branch address consisting of street, town, and address, and the number of accounts in branch
* Customers can have several bank accounts, and a bank account can belong to several customers.
* Staff information is a unique staff number and name consisting of first names and a surname. Staff are frequently referenced by their initials. One member of staff manages each branch.

# Q2 Health service

For the following requirements specification, an inexperienced database designer has come up with the following Entity Relationship diagram:

*“The database is intended to store hospital appointments and to include information about patients, doctors who can be GPs or work in hospitals and appointments. The patients have a national insurance number, a name and an address. Doctors have their registration number, one or more specialties, name and address. If they are GPs doctors have a practice. If they are hospital doctors, the hospital(s) they work in are recorded. The appointments describe which doctor, which patients, which building, and a date and time. Hospitals have a main address, a title and a head doctor and potentially many buildings (perhaps called "A&E" or "Outpatients"). “*

What’s wrong with this diagram? Correct it not using generalization or specialization. Then consider how these could be used.

