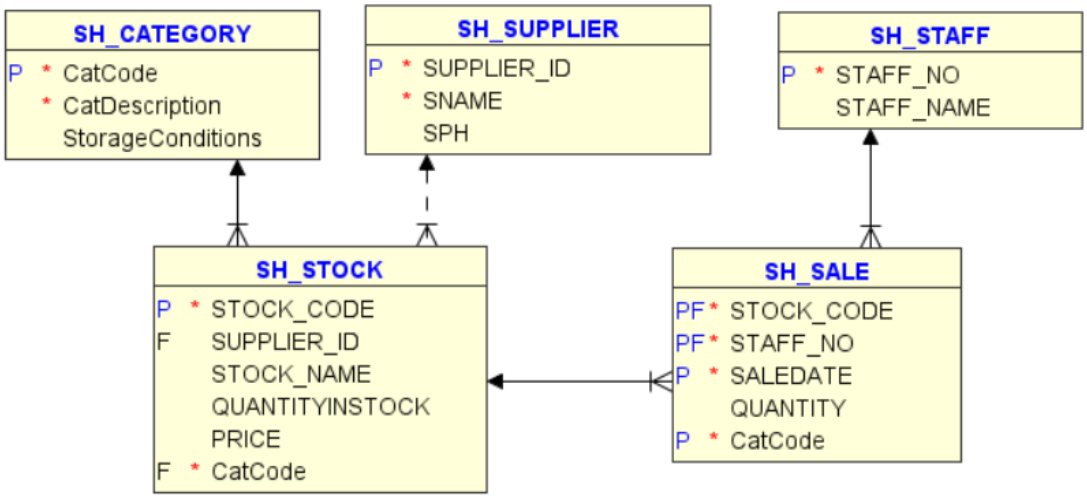
DB2 Lab 2 Advanced queries, corner shop Preview

This week we will use the University server. You will be given accounts and instructions on how to access the tables. There will be nine queries and you are advised to do them all.

Marking will be as follows:

1 mark for completing and explaining a query from the list 1 to 7, chosen by the lab supervisor.
1 mark for completing and explaining a query from 8 and 9, chosen by the lab supervisor.

The schema we will use is explained below. Queries and access instructions will be given at the start of the lab.



A local business called the Corner Shop acts as a newsagent and general shop to the public. There are a few staff members working there. Each staff member is allocated a unique staff_no when they join the shop and their staff no is recorded, with their name, in the SH_STAFF table. There is a wide variety of stock and most of the stock comes from recorded suppliers. Stock is given a category, so that it can be properly stored. When stock comes into the shop, if it is not stock that was sold previously, it is given a unique stock code. The stock_code, stock_name and price for each stock item is recorded in the STOCK table, along with the quantity (quantityinstock). It is given a CatCode to show its category from the SH_CATEGORY. Category descriptions include 'Stationery', 'Long-life food', 'refrigerated food' and 'heavy items'. If the stock came in from a regular supplier, that supplier's supplier_id is recorded in the SH_STOCK table. However, sometimes the shop sells items such as homemade cakes, or flags or bunting for some event. These do not have a supplier_id. Regular suppliers have a unique supplier_id, a name (sname) and a phone number (sph) that are recorded in the SH_SUPPLIER table. When a sale is made, the stock_code and quantity is recorded in the SH_SALE table, along with the STAFF_NO of the staff member who made the sale, and the date and time of the sale.
TABLES:

- SH_SUPPLIER (SUPPLIER_ID(PK), SNAME, SPH)

- SH_STAFF(STAFF_NO(PK), STAFF_NAME)
- SH_CATEGORY (CatCode(PK), CatDescription, StorageConditions)
- SH_STOCK(STOCK_CODE(PK), SUPPLIER_ID(FK optional), STOCK_NAME, QUANTITYINSTOCK, PRICE, CatCode)
- SH_SALE(STOCK_CODE(PK, FK), STAFF_NO(PK, FK), SALEDATE(PK), QUANTITY)

RELATIONSHIPS:

- SH_SUPPLIER: SH_STOCK 0..1:0..many using SUPPLIER_ID , non-identifying
- SH_CATEGORY:SH_STOCK 1:0..many using CatCode, non-identifying
- SH_STAFF: SH_SALE 1:0..many using STAFF_NO, identifying
- SH_STOCK: SH_SALE 1:0..many using STOCK_CODE, identifying

NOTE: An identifying relationship means that the foreign key also acts as part of the primary key. In this case, the SH_SALE primary key is a combination of STOCK_CODE, STAFF_NO and SALEDATE. SALEDATE is used so that the same staff member can sell the same stock item multiple times.