The sample database schema for chain store is shown as Fig. 1. Use the Relational Algebra to fulfill the requirements:

Branch(bid,bname,bmgrid,bloc)

Member(mid,mname,mgender,mcred)

Product(pid,pname,pprice,ptype)

Sell(bid,mid,pid,stime,sprice,scnt,sdiscount)

Emp(eid,ename,hiredate,bid,job,sal)

Note: bmgrid references to the employee who is the manager of given branch.

The foreign key in database includes:

Emp(bid) ; Branch(bmgrid) ; Sell(bid,mid,pid)

1. Get the name of the members who have, at least once, purchased some product with price higher than 100 yuan.
2. Get the name of the members who have spent more than 10000 yuan.
3. Get the name of the branches in which more than 4 employees work and more than 500 products have been sold.
4. For each product, increase the price with 20% of the original price.
5. Get the members who meet the requirement:
   For every product type(e.g. ptype), he/she has bought at least one product categorized to the product type.