CS4416 – Lab 4

Triggers

Preparation

1. Open a browser and load http://infolab.stanford.edu/~ullman/fcdb/oracle.html. This is an Oracle guide you can use in the lab.
2. SSH richmond.csis.ul.ie and login with your Linux username and password.
3. Start SQL*Plus with the command `sqlplus`. Login with your Oracle username and password.

Tasks

1. Make sure you have the following four tables (you had to create last week) loaded with data:

```
Product(maker char(1),model char(4),type varchar2(10))
PC(model char(4),speed real,ram int,hd int,price int)
Laptop(model char(4),speed real,ram int,hd int,screen real,price int)
Printer(model char(4),color varchar2(5),type varchar2(10),price int)
```

The data types above are only a suggestion. It is OK if your data types are not exactly the same.

2. Open the online guide to the syntax of triggers in Oracle
http://infolab.stanford.edu/~ullman/fcdb/oracle/or-triggers.html
and use it as reference.

3. Write triggers which do the following:

   a. When a new tuple is inserted into Laptop with a model number which does not occur in Product, insert a tuple for that model into Product with NULL for `maker`.

   b. When the number of some model is changed in Product it gets automatically updated in any other relation that refers to the same model. For example, if we change model 1001 to 1001111 in Product and the type of this model is `laptop` then we expect the trigger to update 1001 to 1001111 in the relation Laptop as well.

4. Test your triggers.