Lecture 1

We'll draw a class diagram and a sequence diagram to model the following problem domain.

KopyRight is a company which supplies photocopiers on a national basis. To deal with customer problems, KopyRight has a set of Help Desks, one per province.

Customers are organisations, and they will operate from a number of locations across Ireland. At each location, they will have a number of photocopiers.

When a photocopier at some location needs attention, the Help Desk for that location's province is rung.

Each Help Desk has a number of staff, some of whom are Help Desk Operators (HDOs), others of whom are Photocopier Engineers (PEs).

It will be an HDO who initially answers the phone. S/he becomes the 'primary owner' of that call: as such, it is his/her responsibility to make sure that the problem eventually gets resolved.

S/he will start by recording details of the problem. Sometimes s/he will be able to resolve the problem immediately over the phone. In this case, s/he records the status of the call as 'resolved'. Often, however, s/he will need to take a so-called referral action.

In referral, the HDO passes the call on to one of the PEs who works for that Help Desk. This makes the PE a 'secondary owner' of the problem. The PE will try to fix the problem either over the phone or by visiting the customer's site. If s/he solves the problem, the PE informs the primary owner that its status is now 'resolved'.

If, however, the PE cannot resolve the problem, s/he informs the primary owner that the call is still 'unresolved'. The primary owner might now try to pass the call to another PE. This PE now becomes the new 'secondary owner' of the problem.

This goes on until the problem is 'resolved'. (A PE might even become the secondary owner several times if s/he is invited to have repeated stabs at solving the problem.)