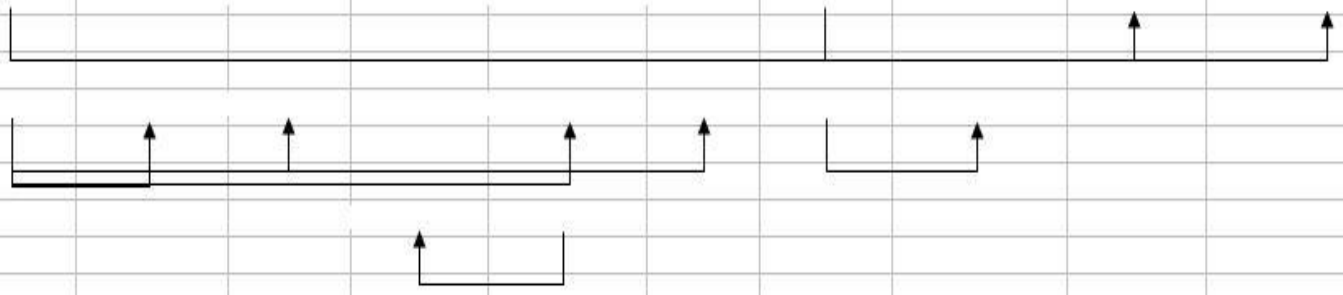
Normalization Exercise

1) Your task in this exercise is to move the un-normalized table to 3NF. To do this, use the dependency diagram.

Unnormalized Table

Dept #	Dept Name	Location	Mgr Name	Mgr ID No.	Tel Extn.	Cust #	Cust Name	Date of Complaint	Nature of Complaint
11232	Soap Division	Cincinnati	Mary Samuel	S11	7711	P10451	Robert Drumtree	12/01/1998	Poor Service
						P10480	Steven Parks	14/01/1998	Discourteous Attendant



2. Employee and Projects

The table below depicts the requirements for a business consultancy working on local and international projects.

Emp-No	Emp-Name	Dept	Dept Manager	Proj-id	Proj-Start-Date	Location	Weeks-on-Project
005	Smith	Marketing	Jones	(A, B, C)	(12-93, 06-94, 09-94)	(Poole, Plymouth, Portsmouth)	(11, 15, 6)
007	Bond	Accounts	Bloggs	(B, D)	(06-94, 06-94)	(Plymouth, Berlin)	(3, 9)
009	King	Info Systems	Hurne	C	09-94	Portsmouth	10
010	Holt	Accounts	Bloggs	A B D	(12-93, 06-94, 06-94)	(Poole, Belfast, Hamburg)	(21,10, 12)

Emp.no is the primary key. Employees work on a number of projects concurrently. *Weeks-on-project* represents the number of weeks that an employee has spent on a particular. The employee number, *emp-no*, and the project identifier, *project-id*, are unique identifiers. The department manager, *manager*, is the name of the current manager, i.e., there can be only one manager per department. A project can take place in several locations (**i.e Employees can work on a project from their location**). You are required to show the first, second and third normal forms.