

Prac Exercise 03

Schema definition; data constraints

Last updated: **Thursday 24th July 8:47am**Most recent changes are shown in **red** ... older changes are shown in **brown**.

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+ Staff

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Status:

Not Logged In

Username:

Password:

CRICOS Provider No. 00098G

Aims

This exercise aims to give you practice in:

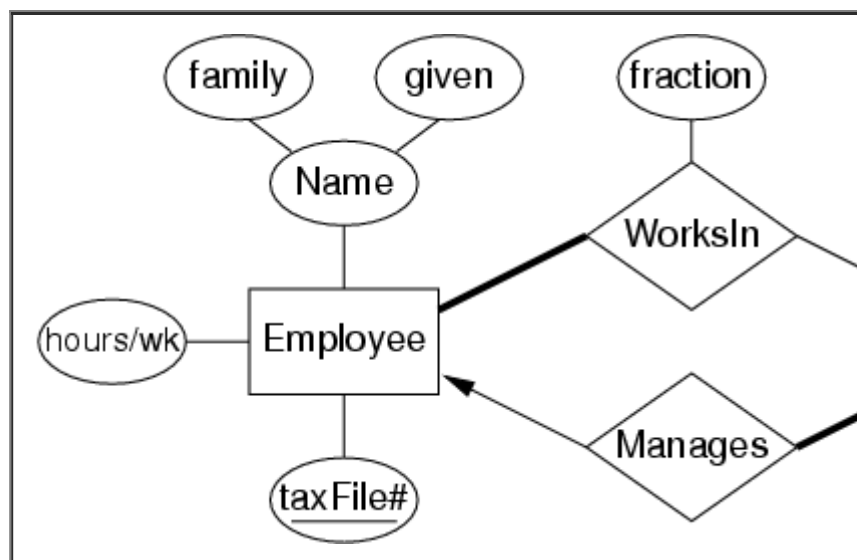
- specifying a schema using the SQL data definition language
- defining constraints on data
- loading tuples into a database

Note that, unlike previous Prac Exercises, this exercise will **not** explain how to do everything. Part of the aim of the exercise is that you explore how to use the PostgreSQL system. A very important tool for this is the [PostgreSQL Manual](#). For this exercise, we'll give pointers to the relevant manual sections; after this, we'll expect you to go and find out how to do things yourself.

Background

We wish to build a simple database for a company which has a number of departments. Each department has a manager and a "mission statement", which is defined by a number of key words (e.g. "commitment", "service", "innovation", etc.). The company also uses numeric codes to identify each department. For each employee, we need to know their name and tax file number (for payroll purposes), and also the total number of hours that they work each week. Employees may work in several departments, and the percentage of their total hours spent in each department needs to be recorded; they have to work in at least one department. Each department has a manager, and they work full-time in that role.

A possible ER design for this company is as follows:



Use this design as the basis for the rest of the Lab.

Consider now some facts about the company:

- there are three departments: Administration, Research, Sales
- Administration has department# 001
- Administration's "mission" is: innovation, reliability, profit
- Research has department# 003
- Research's "mission" is: innovation, technology

