Week Nine

Task 1:

Tree-like data structures are not just restricted to the RAM of a computer. Using the web, find other examples and applications for tree structures.

Task 2:

One data structure that is not discussed in the text is something called an “associative array”. This highly useful structure is implemented in languages such as Perl. Using the web, find out what makes an associative array different from a normal array. Knowing this, how do you think an associative array might be physically implemented using conventional data structures?

Discussion point 1:

As discussed on page 343 of the text, garbage collection is an important function in the management of storage space, especially RAM. When it comes to programs, who do you think is responsible for writing the routines that handle this function?

Task 3:

There can be some interesting results when classes are reused and modified from their original purpose. One example of this is the infamous “armed kangaroo” myth that circulated in the late 90s. You can read about the official response to the myth at:


(see also http://www.snopes.com/humor/nonsense/kangaroo.htm)

The myth was based on truth. An object modelling the behaviour of infantry detachments was modified (along with the visual representation) to represent wildlife (kangaroos and cockatoos) - although not to simulate their actions when a helicopter approached them as described in the myth. However, some of the functions and attributes were not initially disabled, to humorous effect. What “feature” of class behaviour is displayed by this example? What lessons can be learnt?