Recent advances in software engineering 32039
Laboratory exercises: Week 7

Question 1 Define a class `Subject` of university subjects. They should have a name (a string), an abbreviation string (eg. `RASE`), a subject number, a credit point value, and a list of pre-requisite subjects. The pre-requisites need not be of the same sub-class of `Subject`. Include appropriate methods for accessing the fields. Modify toString so that it prints the abbreviated name. Create examples for RASE and another subject you are enrolled in.

Question 2 Define a class of students as a sub-class of the class of proper persons. Include attributes for their course code, (an integer), and current subejct enrolments. Add a method `status` for printing their name, and current enrolments.

Question 3 Add a sub-class of students with a field `history` containing a list of subject-result pairs, for subjects that have been completed. The result is an integer (the mark awarded). Test your class.

Question 4 Create a class of grades with fields for a letter grade (Z,W,P,C,H,D,etc) and a number grade as before. Create another sub-class of students in which the history uses grades instead of numbers.

Question 5 Write a *function* (not a method) that computes the average grade of a student, no matter which of the classes above they belong to.

Question 6 Write a path polymorphic fucntion that computes the average grade of some collection of students, using foldleft.

Question 7 Go through "rase08.bon" replacing instances of Top by other values, and see what happens. Can you explain any error messages you receive?