Project to be completed by week 12. Demo early week 13.

A school requires a pupil management system for a semester. The school has several classes-groups. Classes-groups have several students. Students take several modules. Write an application to manage such a school.

You are to write the following classes.

Main: start off point for the application.

Name: details of a name. firstName;

middleName;

lastName;

The people in our school both teachers and students are part of an inheritance hierarchy and they all have Names.

Person: General super class for all people in the school. Person has a Name email address and phone.

Name name; phone; email; Name has several constructors for different types of names and several get methods for names.

Teacher: subclass of person contains teacher details. Plus degree qualification. Allow edit degree.

Student: subclass of Person. students have in addition to name dob and a list of up to 6 Module-Grade objects. Allow edit to change Subjects.

School: this is your collection of classes. Add, Remove ...classes

Class-Group : this is a you collection of students. Add remove ... students

Module-Grade just module and grade.

Write a test class which creates some class-groups, then adds some students gives the student some marks. Alters the marks of a student. Then display all class and students.

Provide a Gui driven program to allow the user Add or remove class-groups and students. A Student’s modules can be edited. Marks can be entered. List all students (sorted on name) in a particular class along with their modules and grades. List all teachers along with their degrees.

Provide a uml diagram of the classes in this system... (5 Marks)

Gui. (10 Marks)

Classes. (10 Marks)

Functionality. (10 Marks)

Persist all information to a database. (40 Marks)

Document (Javadoc) and test (Junit) your code. (5 Marks)

Use an appropriate package structure. (5 Marks)

Use MVC. (10 Marks)

Show memory usage. (5 Marks)