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 your 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)