

## Assignment-1

a) The two cases of Hierarchy in the given problem can be found at:

- Students:

Students can be postgraduate or graduate.

We can create Students class and make Postgraduate and Graduate as subclasses to Students class.

- Lecturers:

Lecturers can be fulltime lecturers or visiting members.

Create Lecturer as a class and create 2 subclasses for it namely Fulltime and Visitor.

b) Common behavior among day scholar, host-elite, graduate and post graduate students:

- All the students should have their unique id and password in order to access the system.
- Students can view their marks and attendance history using the system.
- All the students should select 2 electives.
- Paying Semester fee is mandatory for all students.

c) Users of the system:

- Admin staff
- Student
- HOD
- Lecturer

d) Details needed in order to generate that report:

- As it is the work of admin staff to register the students to the course they opted, They already have the details of student id, name and the course registered.
- As the system already maintains the history of all the lecturers who have handled the course throughout the semester, admin staff can have the names of lecturers (for a certain course) from the HOD who has access to the lecturers and course information.
- Finally, Marks scored by the students can be retrieved from lecturers.