15. Write a Java object-oriented program to manage the ICT 3 class using inheritance as follows: (also gen 12 final)

- Read the following information entered by the user from the keyboard and save into a text file
    - o The IDs and names of the courses;
    - o The IDs and names of lecturers for each course;
    - o The IDs and full names of the students;
    - o The midterm and final mark for the students of eachcourse.
- From the saved text file, read the list of students. If the student has the average final mark of all courses >= 10 and no course with the midterm mark <= 7, then display to the screen their full name with the status "Grade passing student", otherwise, display to the screen their full name with the status "Retake student".

16. Write a Java object-oriented program that contains four classes: Person, Lecturer, Student, and Course with the appropriate OOP principles and relationships between these classes to manage the three ICT courses OOP, WEB, IP as follows:

■ For each course, the course name is inserted directly into a text file. Others are entered from the keyboard and saved into a text file. Others include the number of students n, the number of lecturers m (n and m are natural numbers >1), the list of lecturer names, the list of student IDs, the list of student full names, the list of student attendance marks, the list of student mid-term marks, the list of student final marks and the list of final course marks (calculated by averaging attendance, mid-term and final mark with ratios 10, 40, 50, respectively).

■ From the saved text file, read the list of courses. For each course, display the course name, display the list of lecturers, then different lists of the students (each displayed student contains student ID, full name, and all mark scores: attendance, mid-term, final mark, and final course mark) with their classification as follows:

(a) The list of average students with attendance marks <6 and final course marks < 10.

(b) The list of good students those have attendance mark >= 10, mid-term <= 15, final mark >= 16, and final course mark >= 13.

17. Write a Java object-oriented program to manage the mark track of math courses in bachelor program as follows:

■ The number of students n is entered from the keyboard. .The list of students with information such as full name, date of the bird in format month/date/year, the math course names, and corresponding marks in the last two years in the bachelor program are entered from the keyboard and saved into a text file.

■ From the saved text file, read the list of students having an average mark of all the math courses >= 15, then display to the screen the student information with the title "The very good math student".