Problem: Sketch Java Classes & Methods

A ***student management system*** stores data about students. There are two kinds of university students: ***resident*** students and ***non-resident*** students. Both kinds of students have a ***name*** and a list of ***registered courses***. Both kinds of students are restricted to ***register*** for no more than 10 courses. When ***calculating the tuition*** for a student, a base amount is first determined from the list of courses they are currently registered (each course has an associated fee). For a non-resident student, there is a ***discount rate*** applied to the base amount to waive the fee for on-campus accommodation. For a resident student, there is a ***premium rate*** applied to the base amount to account for the fee for on-campus accommodation and meals.

Tasks: Write Java classes that satisfy the above problem statement.

Requirement: At runtime, each type of student must be able to register a course and calculate their tuition fee.