

The name of the class that contains my main is "Program". The purpose of my program is to keep track of students, professors and classrooms. The student and professor classes are children of the abstract person class and both have distinct implementations of the SayHi and printInfo methods. They each inherit the member name. The student class has an array of courses called classes. The maximum number of courses allowed is 3. There is also a copy constructor for copying, and static random number member to generate random GPA and School Years for the students. There is also a getName() method that makes it easier for displaying students in a classroom.

The Classroom class has a member "Course", a student array and a capacity to keep track of the number of students in the classroom. There is also a copy constructor for copying. The addStudent() method should be able to add a student to the students array. printClassroom() prints the classroom and students in the class. The Professor class has an array of maximum 3 classrooms, and also has an exclusive method addNewClassRoom() that should add a new classroom to the classRooms[] array using the copy constructor method found in the Classroom class. The "Course" class represents a college course and it contains two strings for name and schedule. There is also a Course constructor as well as a printSelf() method for printing Course info.

The main program starts off creating 10 courses. Then it creates 6 students. After that it creates 6 Professors. It then creates 6 classrooms and assigns those classrooms to the teachers and students. After that the code then prints out the each student and professors info as well as the info of each classRoom. The last part of the code displays the different SayHi() methods between the student and professors.