Assignment 5

Exercise 1

Draw the UML diagram and implement the class **Circle**. The class should contain:
- The `x,y` position
- The `radius`

- An empty constructor that initialises the circle at 0,0 with radius 1
- A constructor that takes the 3 fields

- The getters and setters for all fields
- A method `contains(x,y)` that checks if a point is inside the circle
- A method `contains(circle)` that checks if the circle is inside this circle
- A method `intersects(circle)` that checks if the circle is intersects this circle

Use the distance from the centres (point) and compare it with the radius to check. The distance between two points x_1, y_1 and x_2, y_2 is computed with $sqrt((x_1 - x_2)^2+(y_1 - y_2)^2)$

Exercise 2

Implement the code that follows this UML diagram.
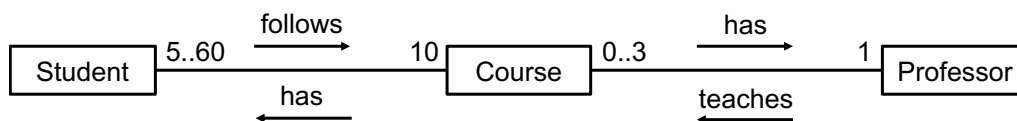
Add methods to add/remove students from courses and to assign professors to courses.

Instructions

The solution of the exercises must be provides as a **java** and **pdf** files. The **files must be zipped** together before upload.

Assignments not respecting these instructions will be ignored.