Object Oriented Architectures and Secure Development

Stream API Lab (and prep for JavaFX Lab)

- Make sure your exercise of last session has at least the following functionality:
    - create students
    - create courses
    - enroll a student in a course
    - check if a student is enrolled *or* get all enrolled students of a course.
- Make a list of 26 (student) names, one for each letter of the alphabet. Write `X?` if you can't find a name with an `X` (or an other letter).
- Make a list of 6 to 9 course names.
- (any names are good, but do not hesitate to pick a theme e.g., students and courses from Harry Potter, or 'real' Howest courses and 'real' Howest students.
- Use the stream API to create `Student` from the list of student names. We do not want the student `X?` , hence make sure that student is never created.
- Enroll random students to random courses (and give them random grades if you have that feature already implemented).
- Enroll at least one student in ALL courses.
- Write a method to retrieve all students (as list/set).
- Write a method to retrieve all courses (as list/set).
- Write a method to check if a student is graduated: a graduated student has been enrolled in all existing courses (or has passed al existing courses if you already implemented the grading system).
- Write a method to retrieve all graduated students.

Most of these assignments are easily implemented using the Stream API, use it

These methods/features will come in handy in the next exercise after the input session on FX

General tips

- Apply the various techniques studied during the classes.
- There isn't one "single solution". Make sure you can motivate your choices.
- It is your software, take ownership.