Online Multiple-Choice Exams:

1.1 Background

Due to COVID19, all university classes and exams will be done remotely. To do the classes, the university has provided a video conference room for each subject, however, there is not yet a solution to do the exams.

We ask you to develop, using RMI, a client server application to perform multiple choice exams remotely.

1.2 Workflow

The workflow of the application is as follows:

1. The professor will upload a csv file to the application with the exam's questions, choices and answers, following this format:

   Question?;choice1;choice2;choice3;…;correct_answer_number.

2. The professor will start the exam session and wait for the students to join the room:
   a. The professor needs to know how many students are in the room.
3. The students connect to the room and wait for the exam to start.
   a. When joining the exam, students will need to send their university ID.
4. The Professor will indicate when to begin the exam in the application.
   a. It is not possible for students to connect after the professor begins the exam. A message will be received indicating this.
5. The server will start sending the questions and choices to the students in order(The correct answer will never be sent).
6. The students chose their answer and send it back to the server.
   a. It is possible that some students take longer to answer, this should not be a problem for the other students.
7. When a student finishes the exam, he will receive the grade and the interaction with the server will finish.
8. If a student disconnects, the exam will remain as it is, And the grade will be based on the answered questions.
9. When the professor decides to finish the exam, all currently connected students will receive their grade and the connection will end even if they have not finished the exam. All the grades will also be stored in a file on the professor's computer.

1.3 To deliver:

In order to present your practical assignment, you must provide a deliverable containing:

1. A document describing your solution, it must include a brief explanation of the most important parts of your decisions when implementing the code.
2. The UML class diagram of the application.
3. The UML sequence diagram of the application.
4. Your code must be set to a git repository (ex: github) and give access to the teacher.