# Mandatory Assignment

There is one mandatory assignment that will run over the entire course. It has to be presented in class on the last day in class (see schedule on Fronter for the exact date).

The mandatory assignment requires you to develop a role call system prototype that allows teachers at CPH Business to keep track of students' class attendance. Teachers should not have to go through a list of students and check who is or who is not in class. The responsibility to register attendance is shifted to the students who have to check in into the system themselves. Cheating should be however minimized.

This is the scenario you need to consider for your prototype:

1. the teacher enters the classroom and starts up the system
2. the teacher provides the students in class with a system generated code and/or get GPS coordinates of teacher's position (let's call this the attendance code; the assumption is that this code is visible only to those students who are sitting in class)
3. students have N minutes to log in to the system and check in by entering that code
4. students must log in using CPH Business network, any other network will deny check in, and/or system will be checking whether student's GPS coordinates are within range from teacher's GPS coordinates
5. after N minutes the system times out, it is not possible anymore for students to check in
6. at any time, the teachers must be able to create different statistics about single student attendance and entire class attendance based on the available system's data, in graphical and/or tabular form
7. a student should be able to see only the data about his/her attendance
8. assuming that classes at CPH Business be scheduled in blocks of two 45-minutes lectures, ideally the procedure from step either 2 or 3 is repeated until the entire class is covered from that day

The above scenario is only an idea for the core application. You might slightly diverge from it by leaving out a few of the features listed or add more features.

**Development of Large Systems**

IMPORTANT NOTE: This assignment will be used as the basis for your final project. More info to follow on this within the last month of our course (see schedule for details about exact dates).