# Plan

**This is the plan for now:**

1. Two people make a schema (Kuba and Baran)
2. **One group** works on the rules module (coding) (Louis and Jop)
3. **Second group** works on the database module (setting up the DB and creating the schema and the module) (Kuba and Baran)
4. **Third group** makes the front-end dispatcher -> user management (Mert and Nathan)

# Teams

* 1. Mert and Nathan
* 2. Louis and Jop
* 3. Kuba and Baran

# Modules

## Front-end/login dispatcher

* This is where all requests go (both read and write), and it dispatches the requests to the other modules
* If we are going to implement load balancer, This module will handle it.
* It needs to have a “state of the system” that says if the rules are followed and if not, which ones are not being followed

## User management module (MERT WILL WORK ON THIS)

* Should create users
* Should authenticate users
* Should check the Cookie for validity
* Should generate a Cookie

## Viewer module

* Returns a student’s schedule
* Returns a teacher’s schedule
* Returns students attending a class

## Schedule-edit module

* This module performs tasks such as:
  + Adding new courses and how many classes per week they need
  + Adding new classrooms that are available
  + Changing COVID rules
* It needs to check the user type for specific operations
  + Faculty member changes the covid rules, adding courses
  + Student can say if he has corona
  + Teacher can say if he has corona
* It needs to be able to change the schedule for when teacher has symptoms of covid-19
* It needs to be able to remove students from their courses when they catch corona
* It needs to be able to change the “state of the system” if the rules are not being followed, and say which one was broken

## Schedule-generate module

* For each schedule addition, figures out when to put them in the schedule
* For each schedule deletion, refactors the schedule and checks with the Rules module whether the DB is still consistent after the change
  + If it’s not then a refactoring of the whole DB should be made
  + If a change is made too close (48h) to the event time then no rescheduling should be done
* Refactoring means:
  + Pick times for classes
  + Adds teachers to new added courses
  + Adds students to new added classes
* If a student has corona should remove from class list and if reported early enough should assign another student instead

## Database module

* One schema for accounts - encrypting passwords
* One schema for schedules
* Hosted on AWS free thing
* Must offer methods that say:
  + How many students are in a class
  + A list of their names
  + Which teacher teaches a class

## 

## Rules module

* Says if a change in classroom/course is legal or illegal
* When rules change then the rules module should check if all the rules are still legal.
* Says if adding a student is legal or not
* When looking at student capacity