## Use Cases

This section begins to describe in more specific and precise detail exactly what steps the system takes during its performance. Use cases serve not only to more specifically define the system (and its boundaries), but also to identify functional requirements, to identify initial objects / classes, and to organize the work.

## Functional Requirements

## Data Requirements

## **The data required to make this project where:**

The study plan for computer engineering

The doctors in this major

The rooms in the A2 building + their capacities

The available time of each of the doctor

Which courses does each doctor give

## Non-Functional Requirements

### Performance Requirements

It will be preferred for the program to run fast but it is not crucial as the timetable will start generating two months before the start of the semester.

### Dependability Requirements:

The program will need to make minimal mistakes, even though it will be rechecked by the doctors.

### Maintainability and Supportability Requirements:

#### **Modular Design and code readability:**

The code will be written in separate function each having its own singular objective to avoid repetitiveness.

#### **Scalability:**

We are trying to make this project work on the course type with the students assigned to it, even though we only have one major in our scoop to make it possible to scale it for all majors.

#### **Automated Testing:**

The use of the genetic algorithm which produce results, evaluate them and then produce new results to improve the old automatically over and over till the most optimal result is found.

#### **Version Control:** Proper use of Git or other versioning tools to track changes.

We are using GitHub to keep track of the versions and to help share our work.

## Security Requirements

Everything is protected with usernames and password securely stored in the mysql database.

## Usability and Humanity Requirements

The front end of our website is very simple and user friendly.

## Look and Feel Requirements

Operational and Environmental Requirements

Cultural and Political Requirements

Legal Requirements