

During the development of this project, I implemented a private school back end structure.

Below there is the design that I have developed.

### Design of a Private School Structure

Course	Trainer
<b>-title</b> <b>-stream</b> <b>-type</b> <b>-start_date</b> <b>-end_date</b>	<b>-firstName</b> <b>-lastName</b> <b>-subject</b>
<b>+getTitle</b> <b>+setTitle</b> <b>+getStream</b> <b>+setStream</b> <b>+getType</b> <b>+setType</b> <b>+getStartDate</b> <b>+setStartDate</b> <b>+getEndDate</b> <b>+setEndDate</b>	<b>+getFirstName</b> <b>+setFirstName</b> <b>+getLastName</b> <b>+setLastName</b>

Student	Assignment
<b>-firstName</b> <b>-lastName</b> <b>-dateOfBirth</b> <b>-tuitionFees</b>	<b>-title</b> <b>-description</b> <b>-subDateTime</b> <b>-oralMark</b> <b>-totalMark</b>
<b>+getFirstName    +setFirstName</b> <b>+getLastName    +setLastName</b> <b>+getDateOfBirth</b> <b>+setDateOfBirth</b> <b>+getFees            +setFees</b>	<b>+getTitle            +setTitle</b> <b>+getDescription    +setDescription</b> <b>+getSubDateTime   +setSubDateTime</b> <b>+getOralMark       +setOralMark</b> <b>+getTotalMark      +setTotalMark</b>

This private school supports multiple courses.

Each course can have multiple trainers, students, and assignments.

For example, the Course CB8 has full time Java and C# and part time Java and C#.

The CB8 course starts on 1/1/2022 and ends at 31/3/2022.

On this CB8 course there are 20 students enrolled and 8 trainers that teach.

During the bootcamp the students need to submit five (5) assignments and two (2) projects, one individual and one team project.

The application that I developed holds in a database multiple courses along with the enrolled students, the trainers that teach the subjects and the

assignments / projects that the students need to submit during the course duration.

Lastly, the program asks from the user a date and provides an output list of the students who need to submit one or more assignments on the same calendar week as the given date.

### **Links used for this exercise:**

#### C#

<https://docs.microsoft.com/en-us/dotnet/api/system.datetime.dayofweek?view=netframework-4.7.2>

#### Java

<https://docs.oracle.com/javase/8/docs/api/java/time/DayOfWeek.html#getValue>

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#### JavaScript

<https://www.npmjs.com/package/date-arithmetic>

#### Python

<https://dateutil.readthedocs.io/en/stable/relativedelta.html>