PBL: Grade Book Part 1: `class Student`

For this project, you will create software for a school grade book that will hold the scores that students received for their assignments.

We will discuss the actual planning in more detail, but for now, let's start with implementing a simple class that will store and manage the information associated with a given student.

Part 1

Write `class Student` such that contains private fields to store:

- the student's family name and given names (separately)
- a student number, which will always be an integer

Include the following methods:

- a constructor that sets every field
- getters: `getStudentNumber`, `getFamilyName`, `getGivenNames`
- an appropriate `toString` method

Part 2

Write `class TestStudent` that:

- has a `main` method (and other methods, if helpful)
- instantiates a few `Student` objects
- tests all the methods within the `Student` class

Part 3

Design `class Assignment` that will store the details of an assignment that would be applicable to a student grade book. Generally, a grade book does not contain the actual questions in an assignment. Consider what fields are required. Draw a sketch of the object you will create. Then try to come up with a list of methods that would be needed to get data from or modify the data in the object. Note that for the `class Student` given above, once a student is created, the information cannot be changed. Consider what, if any, information of an `Assignment` object may have reason to be changed after creation of the `Assignment` object. Once you've completed `class Student` and the design of `class Assignment`, submit them to the teacher to get the next step of the assignment.

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```
public class Student {

    private String familyName;
    private String givenNames;
    private int studentNumber;

    public Student(String familyName,
                   String givenNames,
                   int studentNumber) {

        this.familyName = familyName;
        this.givenNames = givenNames;
        this.studentNumber = studentNumber;
    }

    public String getFamilyName() {
        return familyName;
    }

    public String getGivenNames() {
        return givenNames;
    }

    public int getStudentNumber() {
        return studentNumber;
    }

    public String toString() {
        return studentNumber + " " + familyName + ", " + givenNames;
    }

}
```