

## Laborator 9

Using Student class that stores the givenName, familyName, dateOfBirth and grades of a student defined in the previous homework.

The type of the data should be the following:

- givenName, familyName - char \*
- studentId - int
- grades - std::vector
- dateOfBirth - Date

Do the following:

1. Make sure this is compiling as expected:

```
void studentTestFunc() {  
    Student student1("John", "Doe", 1);  
    student1.addGrade(85);  
    student1.addGrade(90);  
    student1.display();  
  
    Student student2 = student1;  
    student2.display();  
  
    student2.addGrade(95);  
    std::cout<<student1;  
    std::cout<<student2;  
}
```

2. Create a Person class that will store the givenName, familyName and dateOfBirth. Student class will inherit the Person class.
3. Create a Teacher class which will contain givenName, familyName, dateOfBirth, subject(enum Subject with Math, ComputerScience, English etc.) and dateOfHiring.
4. Add a new member in Teacher class that will store the students a teacher is teaching. Create a function in Teacher class that will assign/deassign a student to a teacher.
5. Create a method which will let us know the experience of a teacher. Based on the experience the teacher will be: Novice, Experienced or Veteran.  
0–5 years: "Novice"  
6–15 years: "Experienced"  
16+ years: "Veteran"
6. Change the grades vector to store now the grades based on the subject.
7. Create a method that will compute the average grade based on the subject. Print for all students the average at each subject.

8. Create a Principal class that contains givenName, familyName and dateOfBirth. The Principal class should oversee the entire list of teachers and students and the principal should be only one.
9. Create a method displaySchoolOverview which will print the number of students and teachers from the school.
10. Create a method in the Principal class that will print the number of students assigned to each teacher.

Score: 1, 2 - 0.5p 3-10 - 1p

Deadline: 19 decembrie 2024