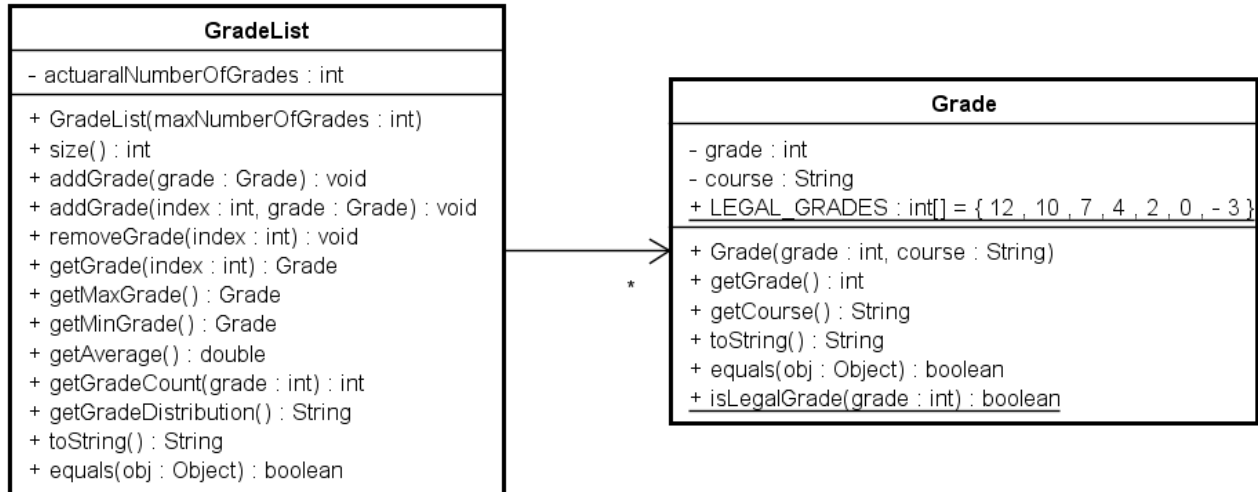# Exercises, SDJ1

## Exercise: GradeList (version 6)

Copy classes `Grade` and `GradeList` into a new module in IntelliJ. It does not matter if it is an `ArrayList` version or an array version (as shown in the class diagram below)



Modify Class `Grade` (to include both `grade` and `course`)

- Add an extra instance variable, `course` (of type `String`)
- Add a get method for the `course` instance variable
- Update the constructor to take both a grade and the course.
- Update `equals` and `toString` to include information for the `course` too.

Modify Class `Grade` (related to exceptions)

- If you haven't already implemented it, then implement the <u>static</u> `boolean` method `isLegalGrade(int grade)` in class `Grade`. The method returns `true` if the argument passed to the method (`grade`) is a legal grade, i.e. is -3, 0, 2, 4, 7, 10 or 12. Otherwise, return `false`.
- Change the constructor in class `Grade` (and if your version has a method `setGrade` then also this method) such that the method will throw an exception of type `IllegalArgumentException` if the parameter `grade` (the integer passed as argument) is illegal.
- Change the constructor (and if your version has a method `setCourse` then also this method) such that the method will throw an exception of type `IllegalArgumentException` if the parameter `course` is `null` or an empty string.

## Exercise: Main method for GradeList (version 6)

Implement a (or change an existing) test class such that you create 4 `Grade` objects from keyboard input to store in a `GradeList`-object. Use a combination of `try-catch` blocks and loops to accept only legal grades and not terminating the program for illegal grades as input – keep on asking for legal grades until you have stored 4 legal grades in the `GradeList`-object