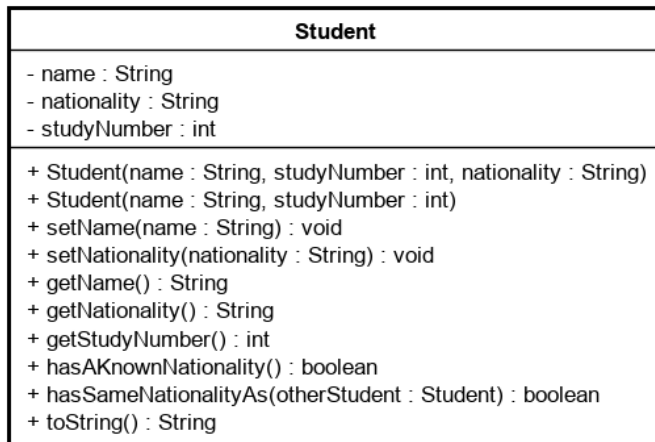


Exercise, SDJ1

Exercise: Student

Create a class `Student` exactly as shown in the class diagram below:



Create a class `Student` with the following:

- Three instance variables, a name, a nationality (i.e. country code) and a study number, `name`, `nationality` and `studyNumber`, respectively. Types are given in the class diagram.
- A 3-argument constructor for name, study number and nationality and a 2-argument constructor for name and study number (initialise nationality to `null` representing an unknown nationality)
- Set methods for name and nationality, `setName` and `setStudyNumber`, respectively. If the name is `null` or an empty string, then set the name instance variable to "Unknown". If the nationality is a string with length not equal to 2, then set it to `null` (note also that `null` is a legal value for the nationality parameter variable)
- Get methods for all three instance variables. `getName`, `getNationality` and `getStudyNumber`, respectively
- A method `hasAKnownNationality` returning `true` if the nationality is not `null`, otherwise return `false`
- A method `hasSameNationalityAs` taking another `Student` as argument and returning `true` if the two students have the same nationality, otherwise return `false`. If both of them do not have a known nationality then return `false`.
- A method `toString()` that return a `String` with all information of a `Student`-object, null values are not shown.

Example 1: name = "Bob", nationality = "US", study number = 212121 return "Bob (US), 212121"

Example 2: name = "Bob", nationality = null, study number = 212121 return "Bob, 212121"

Create a test class (`StudentTest`) with a main method and test the class `Student`

- Create at least three `Student`-objects
- Call all the methods you made in class `Student`, i.e. all methods
- Print out all information of each `Student`-object calling method `toString()`