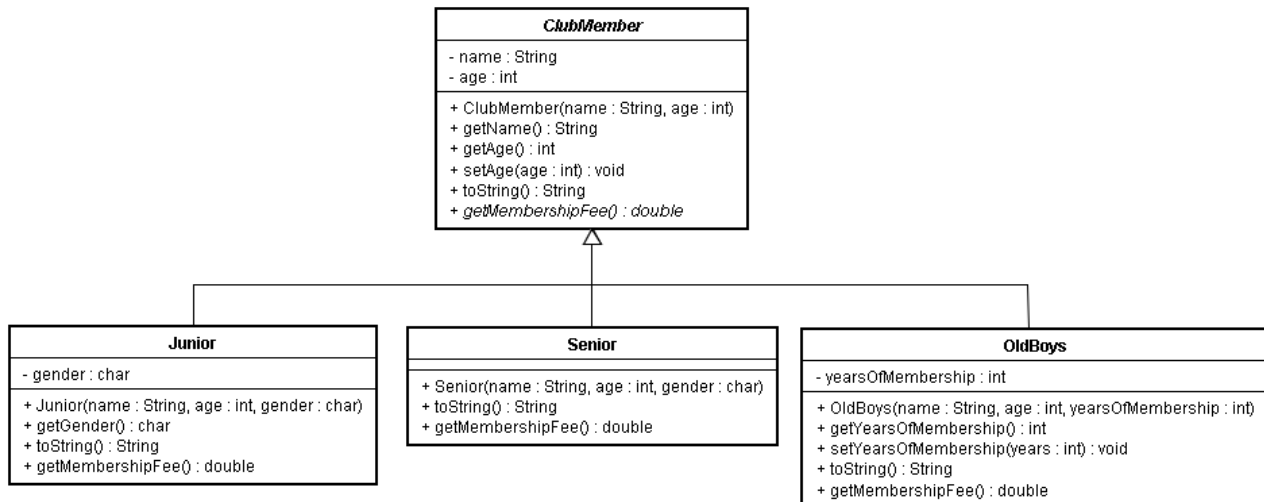


# Exercises, SDJ1

## Exercise: Club member hierarchy



Implement all classes exactly as shown in the UML class diagram above

- Implement the abstract class `ClubMember`
- Implement classes `Junior`, `Senior`, and `OldBoys`

The membership fee is the following:

Junior: fee for boys is 400 and fee for girls are 300

Senior: fee is 10 times (100 minus the age).

Example 40 year old senior members has a fee of  $10 \times (100 - 40) = 600$

Old Boys: fee for the members depends on how many years they have been members:

Less than 5 years: fee = 300

From 5 years to 9 years, both included : fee = 200

More than 9 years: fee = 100

- Implement a test class with a main method – and use polymorphism, e.g. with an array of `ClubMember` object references with each element assigned to one of the three subclasses and a loop in which you call method `getMembershipFee()` for all elements.