Exercise, SDJ1
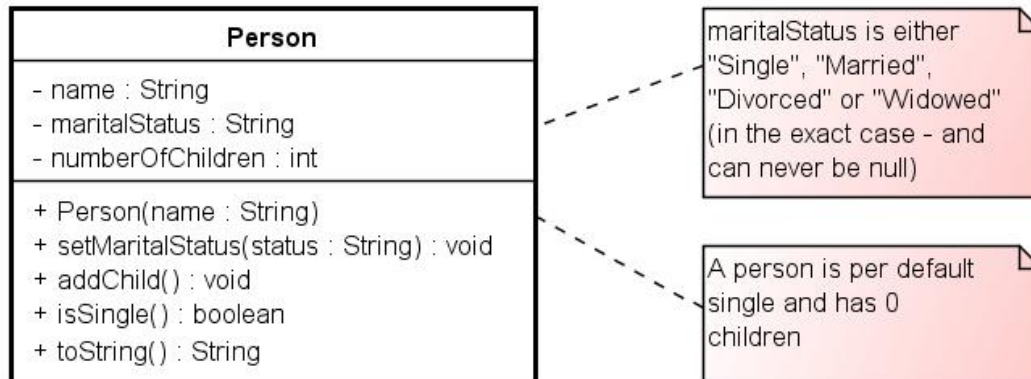
Exercise: Marital status

Implement a class Person exactly as shown in the UML class diagram below

Person
- name : String - maritalStatus : String - numberOfChildren : int
+ Person(name : String) + setMaritalStatus(status : String) : void + addChild() : void + isSingle() : boolean + toString() : String

maritalStatus is either "Single", "Married", "Divorced" or "Widowed" (in the exact case - and can never be null)

A person is per default single and has 0 children

A few notes:

- Remember the purpose for a constructor.
- Method setMaritalStatus(…) only sets the status if the argument is "Single", "Married", "Divorced" or "Widowed". If the argument is one of these but not in lower case with the first letter in upper case then accept it but store the status in the correct case.
- Method addChild() is updating the instance variable numberOfChildren (one more child)
- Method isSingle() returns true if the marital status is "Single". Otherwise returns false.
- Method toString() returns a string with information of the name, marital status and number of children of the person. If the person has 0 or more than 1 child then put the word "children" as part of the string and if only one child the put the word "child" as part of the string.

Implement a class PersonTest with a main method in which you at least do the following:

- Create a Person object calling the constructor with a name after your choice
- Print out all information of the person
- Now update the person to be married and has two children.
- Print out all information of the person again
- Print out if the person is single