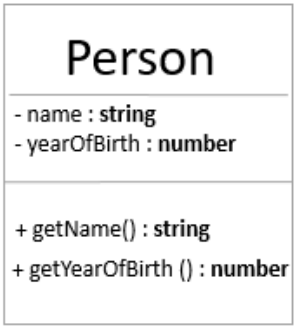
C3- S2 – PRACTICE

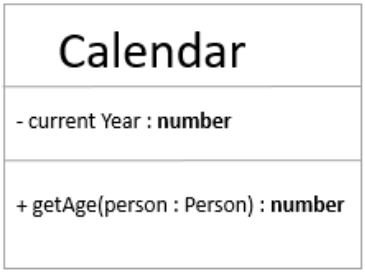
EXERCICE 1

A person has a **name** and a **year of birth**:



A calendar is in charge of **computing the age of a given person**

- ✓ We need only 1 instance of the calendar
- ✓ A calendar contains the CURRENT YEAR (ex : now it's 2021)



Q1 - Create the model, following the public/private visibilities of attributes and methods

Q2 - Code the method to compute the age of a person

Q3 - Test your model by creating **different person** and **1 unique calendar**

EXERCICE 2

- ✓ Open the **SCHOOL.TS file**

Q1 - Create the UML diagram corresponding to the classes and their relations ships

- Don’t forget the visibilities (public / private)
- Don’t forget the multiplicities (1, 0/1 etc...)
- Write your UML diagram using the **TEMPLATE.PPTX** file provided

Q2 - Create a MAIN.TS file **to test your SCHOOL MODEL**:

- Create 2 schools, 2 classrooms, 4 students

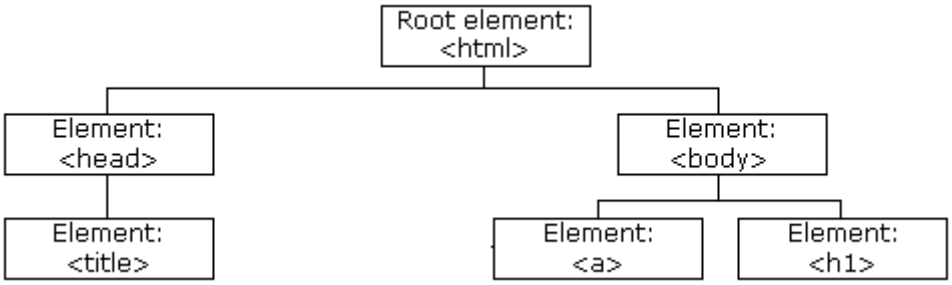
EXERCICE 3 – THE DOM

We want to represent the tree of the DOM elements, related to an HTML page

For example this page:

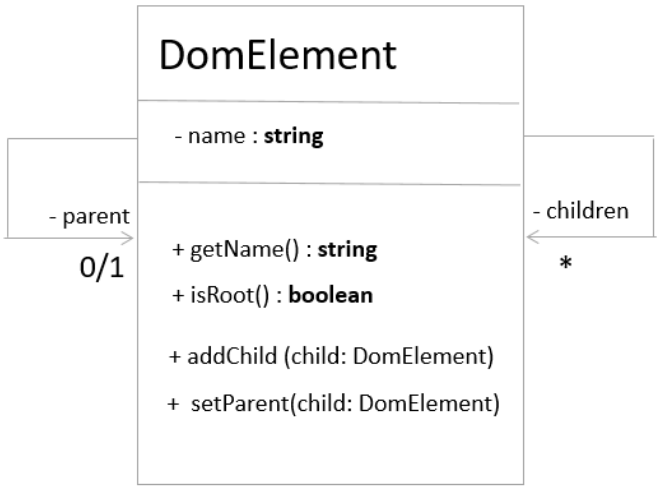
```
<html>
      <head>
            <title>
      </head>
      <body>
            <a>
            <h1>
      <body>
</html>
```

Can be represented using this tree:



Every element is an object DomElement:

- The element can have a parent or not (is not, the element is a **root**)
- The element can have children or not (is not, the element is a **leave**)



Q1 - Create the model, following the public/private visibilities of attributes and methods

Q2 - Test your model: create the node object which correspond to the following tree: