



**Interface Person:**

- METHODS:
  - **calculateScore ()**: calculated as:
    - **for Graduate** : Score = nbPapers \* gpa
    - **for UnderGraduate**: Score = gpa \* 3 + 5
  - **getName ()**: returns the *name* of the student.

**Student class**

- METHODS:
  - **Student (name: String, gpa : double)**: constructor.

**Graduate class**

- METHODS:
  - **Graduate (name: String, gpa : double, nbPpapers : int)**: constructor.
  - **getNbPapers()**: getter for attribute *nbPapers*.

**UnderGraduate class**

- METHODS:
  - **UnderGraduate (name: String, gpa : double)**: constructor.

*Institute class*

- METHODS:
  - *Institute(name: String)*: constructor.
  - *addPerson(p: Person)*: add a person to the institute.
  - *countUnderGraduate (s : double)*: count the number of *UnderGraduate* in the institute with score greater or equal to *s*.
  - *getGraduate (n : int)*: this method will return an array containing all the *Graduate* with number of papers greater than *n*.

**QUESTION:** Translate into Java code all the classes