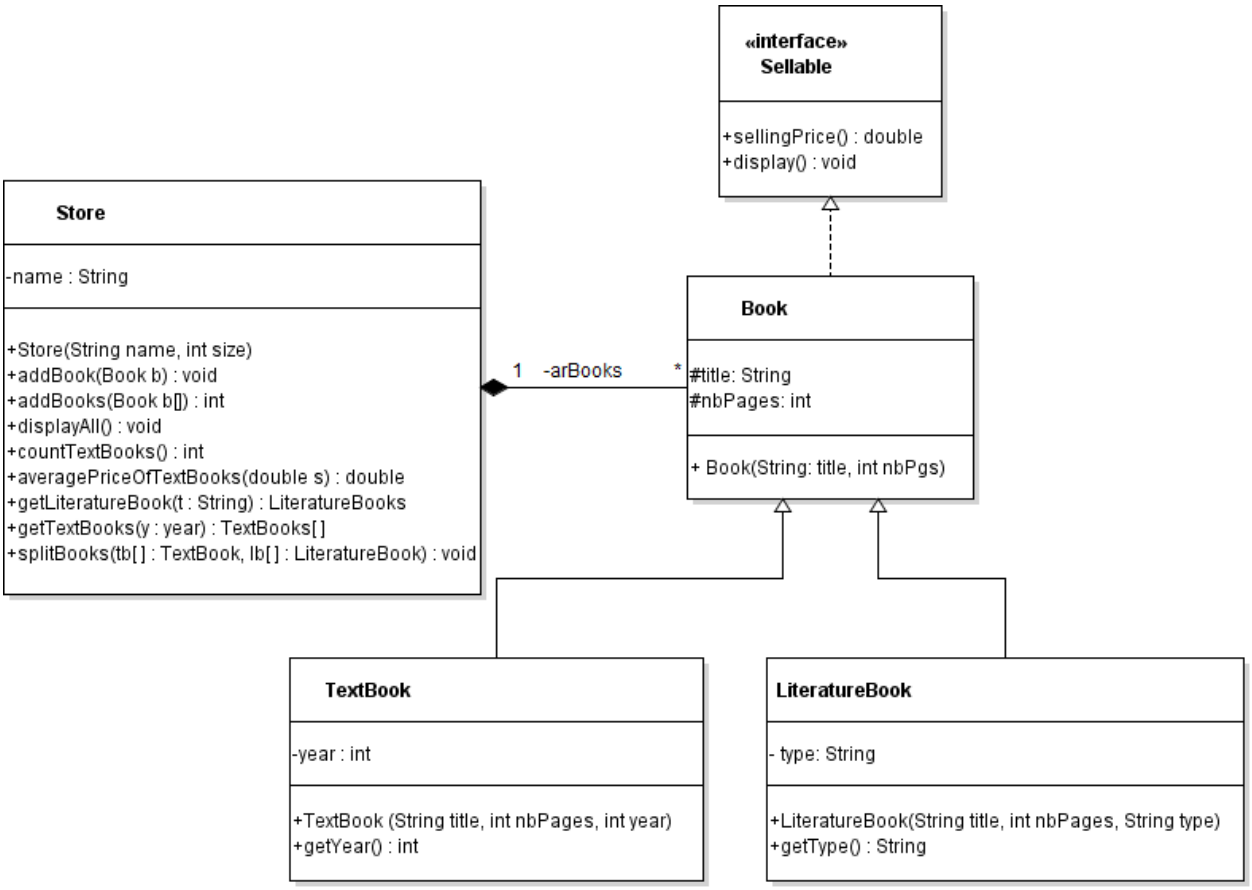
# King Saud University
# College of Computer and Information Sciences
# Department of Computer Science
# CSC113 – Computer Programming II – Homework Interfaces– Spring 2015

## Exercise1:




***Sellable*** interface***:***

- Methods:
  - ***sellingPrice()*** : This method calculates price as follows:
    - ***Textbook***: selling price = nbPages*2 + (year%2000) * 30
    - ***LiteratureBook***: selling price = nbPages*2 + 2000 * 30
  - ***display()*** : print all the attributes.

***Book*** class

- Attributes:
  - ***title***: the title of the book.
  - ***nbPages:*** the number of pages int the book.
- Methods:
  - ***Book (title: String, nbPgs: int)***: constructor.

***TextBook*** class:

- Attributes:

- ***year***: the year the book was published.

- Methods:
  - ***TextBook (title: String, nbPages: int, year: int):*** constructor.
  - ***getYear()*** : getter for year.

***LitratureBook*** class:

- Attributes:
  - ***type***: the type of the book.
- Methods:
  - ***LitratureBook (title: String, nbPages: int, type: String):*** constructor.
  - ***getType():*** getter for type

***Store*** class:

- Attributes:
  - ***name***: the name of the store.
- Methods:
  - ***Store (name: String, size: int):*** constructor.
  - ***addBook(Book b)*** : add a single book to the array
  - ***addBooks(Book b[]) :*** add multiple books from b array to the **arBooks** array and returns the number of added books.
  - ***displayAll()***: display all the books in the array
  - ***countTextBooks()*** : this method returns the number of all **TextBooks** in the array.
  - ***averagePriceOfTextBooks(double s) :*** this method returns the average of all the **TextBooks** with selling price greater than s.
  - ***getLiteratureBook(t : String)*** : this method returns the **LitratureBook** that has the same title as **t**. This method throws an **IllegalArgumentException** if no book was found.
  - ***getTextBooks(y : year) :*** This method returns an array contains all **TextBooks** with year less than **y**.
  - ***splitBooks(tb[ ] : TextBook, lb[ ] : LiteratureBook)***: This method will save all **TextBook** objects into **tb** and all **LitratureBook** objects into **lb**.

**QUESTION**: Translate into Java code ***All the classes and interface***