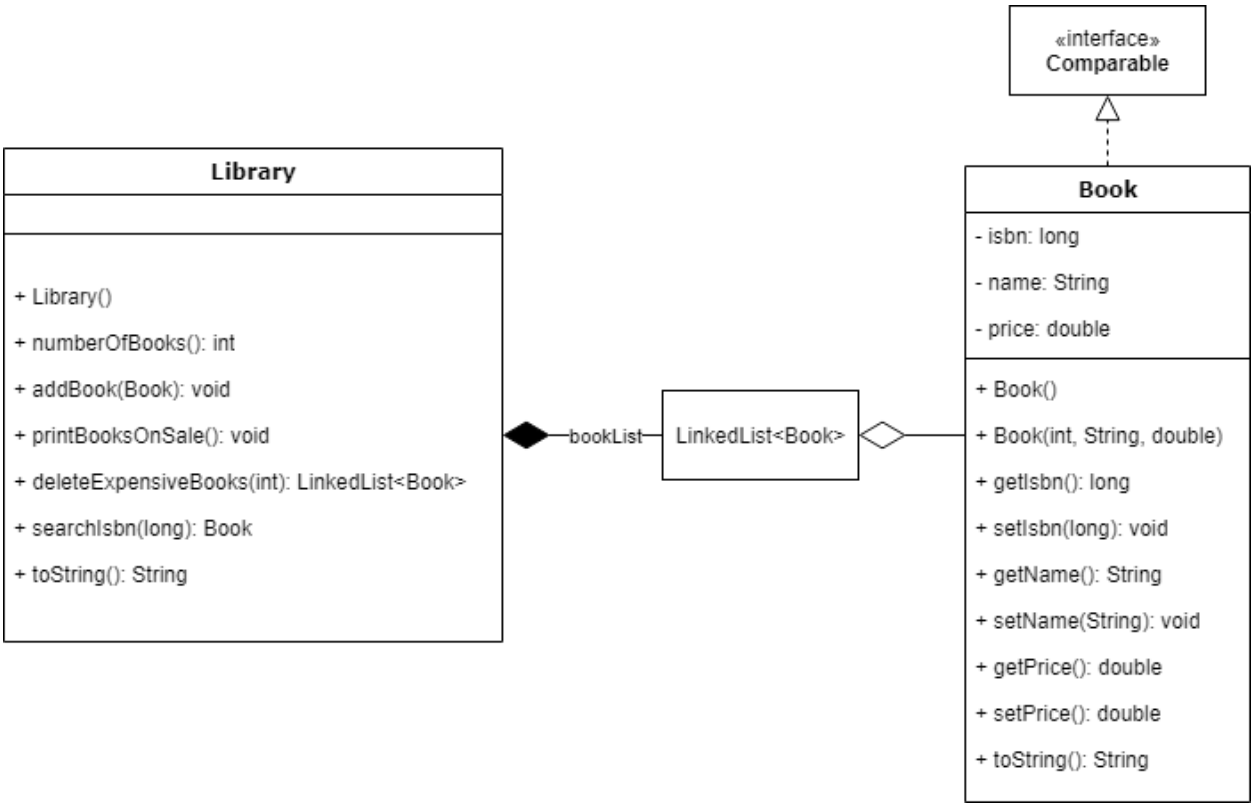
Guidelines:

- **Make sure to submit your files to Google Classroom before the deadline,** otherwise, your work won't be considered for grading.
- **Submit only the java files as separate files (i.e. not as zipped files).**
- **Refer to the Java files attached on Google classroom**

Library Application

1. You are asked to implement the following UML classes based on the following class diagram:



- The Book class implements the Comparable interface such that book b1 > book b2 when b1.price > b2.price, b1 < b2 when b1.price < b2.price, and b1 = b2 when b1.price = b2.price

- The Library class contains a private LinkedList called booksList which stores the books in **ordered** manner based on price.
    - addBook should add the book maintaining the order of the books in booksList
      public void addBook(Book b)

    - printBooksOnSale prints all the info of the books with price less than the specified value
      public void printBooksOnSale(int price)

    - deleteExpensiveBooks deletes all books with price more than the specified value and returns a LinkedList that contains the deleted books
      public LinkedList<Book> deleteExpensiveBooks(int price)

    - searchIsbn searches for the book with the specified ISBN. It returns the book if it was found, null otherwise

      public Book searchIsbn(long isbn)

2. Add a Main class that implements a main method to test the classes by creating a Library object and testing the different methods. The main method should do the following:
    - Add 3 books to the list with different prices between 5 and 1500
    - Print the list of books
    - Print books with price < 100
    - Delete books with price > 1000
    - Print the new list of books, along with the list of deleted books
    - Search for a book with a specified ISBN, and print it on the screen