```java
public class Page {

    private int pNumber;
    private String text;

    public Page(int pNb, String t) {
        pNumber = pNb;
        text = t;
    }

    public Page (Page p) {
        pNumber = p.pNumber;
        text = p.text;
    }

    public void setPNumber(int nb) {
        pNumber = nb;
    }

    public int getPNumber() {
        return pNumber;
    }

    public void setText(String t) {
        text = t;
    }

    public String getText() {
        return text;
    }

}
```

```java
public class Author {

    private int id;
    private String name;

    private Book[] book;
    private int nbBook;

    public Author() {
        book = new Book[50];
        nbBook = 0;
    }

    public Author(int autId, String autName) {
        id = autId;
        name = autName;

        book = new Book[50];
        nbBook = 0;
    }

    public void setId(int autId) {
        id = autId;
    }

    public int getId() {
        return id;
    }

    public void setName(String autName) {
        name = autName;
    }

    public String getName() {
        return name;
    }

    public void addBook(Book b) {
        if (nbBook < book.length) {
            book[nbBook] = b;
            nbBook++;
        }
    }

    public void deleteBook(int index) {
        if(index >= 0 && index < nbBook) {
            book[index] = book[nbBook - 1];
            book[nbBook - 1] = null;
            nbBook--;
        }
    }

}
```

```java
public class Book {

    private String title;

    private Author[] author;
    private int nbAuthor;

    private Page[] page;
    private int nbPage;

    public Book(String t) {
        title = t;

        author = new Author[50];
        nbAuthor = 0;

        page = new Page[50];
        nbPage = 0;
    }

    public void setTitle(String bTitle) {
        title = bTitle;
    }

    public String getTitle() {
        return title;
    }

    public int getNbPages() {
        return nbPage;
    }

    public void addPage(Page p) {
        if (nbPage < page.length) {
            page[nbPage] = new Page(p);
            nbPage++;
        }
    }

    public void deletePage(int pNumber) {
        for(int i = 0;i < nbPage; i++) {
            if (page[i].getPNumber() == pNumber) {
                page[i] = page[nbPage - 1];
                page[nbPage - 1] = null;
                nbPage--;
            }
        }
    }

    public void addAuthor(Author a) {
        if (nbAuthor < author.length) {
            author[nbAuthor] = a;
            nbAuthor++;
```

```
        }
    }

    public void deleteAuthor(int index) {
        if(index >= 0 && index < nbAuthor) {
            author[index] = author[nbAuthor - 1];
            author[nbAuthor - 1] = null;
            nbAuthor--;
        }
    }

    public boolean isFound(String text) {
        for(int i = 0; i < nbPage; i++)
            if (page[i].getText().equals(text))
                return true;

        return false;
    }

}
```

```java
public class Bookstore {

    private String name;

    private Book[] book;
    private int nbBook;

    public Bookstore(String BSname) {
        name = BSname;

        book = new Book[50];
        nbBook = 0;
    }

    public void setName(String BSname) {
        name = BSname;
    }

    public String getName() {
        return name;
    }

    public int getNbBook() {
        return nbBook;
    }

    public boolean isFound(String text) {
        for(int i = 0; i < nbBook; i++)
            if (book[i].isFound(text))
                return true;

        return false;
    }

    public void addBook(Book b) {
        if (nbBook < book.length) {
            book[nbBook] = b;
            nbBook++;
        }
    }

    public void deleteBook(int index) {
        if(index >= 0 && index < nbBook) {
            book[index] = book[nbBook - 1];
            book[nbBook - 1] = null;
            nbBook--;
        }
    }

}
```

```java
public class BookstoreTest {

    public static void main(String [] args) {
        Book b1, b2, b3;
        Author a1, a2, a3;
        Page p1, p2, p3;
        Bookstore bs;

        System.out.println("-----------------------------------------------------------------");

        // Book 1

        System.out.println("Book: Java Programming, Author: Abdulrahman Al-Saleh");
        System.out.println("Pages Text: Classes, File IO, Inheritance");

        b1 = new Book("Java Programming");
        a1 = new Author(1,"Abdulrahman Al-Saleh");
        p1 = new Page(1,"Classes");
        p2 = new Page(2,"File IO");
        p3 = new Page(3,"Inheritance");

        b1.addAuthor(a1);
        a1.addBook(b1);
        b1.addPage(p1);
        b1.addPage(p2);
        b1.addPage(p3);

        System.out.println("-----------------------------------------------------------------");

        // Book 2

        System.out.println("Book: Computing Essentials, Author: John Smith");
        System.out.println("Pages Text: Hardware, Software, Operating System");

        b2 = new Book("Computing Essentials");
        a2 = new Author(2,"John Smith");
        p1 = new Page(1,"Hardware");
        p2 = new Page(2,"Software");
        p3 = new Page(3,"Operating System");

        b2.addAuthor(a2);
        a2.addBook(b2);
        b2.addPage(p1);
        b2.addPage(p2);
        b2.addPage(p3);

        System.out.println("-----------------------------------------------------------------");

        // Book 3

        System.out.println("Book: English Workbook, Author: Robert Jones");
        System.out.println("Pages Text: Unit 1, Unit 2, Unit 3");
```

```
        b3 = new Book("English Workbook");
        a3 = new Author(3,"Robert Jones");
        p1 = new Page(1,"Unit 1");
        p2 = new Page(2,"Unit 2");
        p3 = new Page(3,"Unit 3");

        b3.addAuthor(a3);
        a3.addBook(b2);
        b3.addPage(p1);
        b3.addPage(p2);
        b3.addPage(p3);

        System.out.println("-----------------------------------------------------------------");

        // Bookstore

        System.out.println("Bookstore: KSU Bookstore");
        System.out.println("Books: Java Programming, Computing Essentials, English Workbook");

        bs = new Bookstore("KSU Bookstore");

        bs.addBook(b1);
        bs.addBook(b2);
        bs.addBook(b3);

        System.out.println("-----------------------------------------------------------------");

        // Search for existent book text
        System.out.println("Searching for: Software");
        System.out.println("is found: " + bs.isFound("Software"));

        System.out.println("-----------------------------------------------------------------");

        // Search for none-existent book text
        System.out.println("Searching for: NotFound");
        System.out.println("is found: " + bs.isFound("NotFound"));

        System.out.println("-----------------------------------------------------------------");
    }
}
```