

Okt 16, 13 10:12

Book.java

Page 1/2

```

import java.util.ArrayList;
import java.util.Scanner;

public class Book {

    private String title;
    private ArrayList<String> authors;

    public Book(String title) { ... } // Uppgift

    public Book(String title, String author) { ... } // Uppgift

    public Book(String title, String[] authors) { ... } // Uppgift

    public Book(String title, ArrayList<String> authors) { ... } // Uppgift

    public static Book load(Scanner sc) {
        if ( !sc.hasNextLine() ) {
            return null;
        } else {
            String title = sc.nextLine();
            Book b = new Book(title);
            String author = sc.nextLine();
            while(!author.equals(";")) {
                b.authors.add(author);
                author = sc.nextLine();
            }
            return b;
        }
    }

    public String toString() { ... } // Uppgift

    public String getTitle() {
        return title;
    }

    public boolean isAuthor(String name) { ... } // Uppgift

```

Okt 16, 13 10:12

Book.java

Page 2/2

```

/**
 * Test program
 */
public static void main(String[] args) {
    Book[] books = new Book[4];
    books[0] = new Book("Havamal"); // Without author
    books[1] = new Book("Kalloccain", "Boye"); // With one author
    String[] authors = {"Anders", "Olle", "Urban"}; // Array with authors
    books[2] = new Book("Klassisk latin", authors);
    ArrayList<String> authorList =
        new ArrayList<String>(); // ArrayList with authors
    authorList.add("Lisa");
    authorList.add("Anna");
    books[3] = new Book("Modern latin", authorList);

    for (int i=0; i<books.length; i++) {
        System.out.println(books[i].toString());
    }

    authors[2] = "Ivan";
    authorList.remove("Anna");
    System.out.println("\nWhat will be printed below?"); // Uppgift
    System.out.println(books[2]);
    System.out.println(books[3]);
}

/* Output from the main method

"Havamal" by []
"Kalloccain" by [Boye]
"Klassisk latin" by [Anders, Olle, Urban]
"Modern latin" by [Lisa, Anna]

What will be printed below?

*/

```

Okt 16, 13 10:05

BookList.java

Page 1/1

```

import java.util.ArrayList;
import java.util.Scanner;
import java.io.*;

public class BookList {

    private ArrayList<Book> theBooks;

    public BookList() {
        theBooks = new ArrayList<Book>();
    }

    public void add(Book b) {
        theBooks.add(b);
    }

    public BookList byAuthor(String name) { ... } // Uppgift

    public void load(String fileName) throws FileNotFoundException { // Uppgift
        Scanner sc = new Scanner(new File(fileName));
        Book b = Book.load(sc);
        while (b!=null) {
            theBooks.add(b);
            b = Book.load(sc);
        }
    }

    public void print() {
        for (Book b:theBooks) {
            System.out.println(b);
        }
    }

    public static void main(String[] args) throws FileNotFoundException {
        BookList theList = new BookList();
        theList.load("store.txt");
        theList.print();

        System.out.println("\nBooks by Knuth:");
        theList.byAuthor("Knuth").print();
    }
}
/* Output:
"Java Direkt" by [Skansholm]
"Java Software Solutions" by [Lewis, Loftus]
"Introduction to Computing" by [Ericson, Guzidal]
"Kallocain" by [unknown, Boye]
"Liftarens guide till galaxen" by [Adams]
"Restaurangen vid slutet av universum" by [Adams]
"The Art of Computer Programming, vol 1" by [Knuth]
"Structure and Interpretation of Computer Programs" by [Abelson, Sussman]
"Concrete Mathematics" by [Graham, Knuth, Patashinik]
"TheTeXbook" by [Knuth]

Books by Knuth:
"The Art of Computer Programming, vol 1" by [Knuth]
"Concrete Mathematics" by [Graham, Knuth, Patashinik]
"TheTeXbook" by [Knuth]
*/

```