

```
abstract class Book {  
    private final String title;  
    private final String author;  
    public static int count = 0;  
  
    Book(String title, String author) {  
        this.title = title;  
        this.author = author;  
        count++;  
    }  
  
    public String getTitle() {  
        return title;  
    }  
  
    public String getAuthor() {  
        return author;  
    }  
  
    public static int getCount() {  
        return count;  
    }  
}  
  
class FictionBook extends Book {  
    public static int fictionCount = 0;  
  
    FictionBook(String title, String author) {  
        super(title, author);  
    }  
}
```

```
        fictionCount++;  
    }  
}
```

```
class NonFictionBook extends Book {  
    public static int nonFictionCount = 0;  
  
    NonFictionBook(String title, String author) {  
        super(title, author);  
        nonFictionCount++;  
    }  
}
```

```
class HistoryBook extends NonFictionBook {  
    public static int historyCount = 0;  
  
    HistoryBook(String title, String author) {  
        super(title, author);  
        historyCount++;  
    }  
}
```

```
class StoryBook extends FictionBook {  
    public static int storyCount = 0;  
  
    StoryBook(String title, String author) {  
        super(title, author);  
        storyCount++;  
    }  
}
```

```
}
```

```
class Library {
```

```
    private final Book[] books;
```

```
    private int bookCount;
```

```
    Library() {
```

```
        books = new Book[100];
```

```
        bookCount = 0;
```

```
    }
```

```
    void addBook(String title, String author) {
```

```
        if (bookCount < 100) {
```

```
            Book book = new StoryBook(title, author);
```

```
            books[bookCount] = book;
```

```
            bookCount++;
```

```
        } else {
```

```
            System.out.println("Library is full");
```

```
        }
```

```
    }
```

```
    void removeBook(String title) {
```

```
        for (int i = 0; i < bookCount; i++) {
```

```
            if (books[i].getTitle().equals(title)) {
```

```
                for (int j = i; j < bookCount - 1; j++) {
```

```
                    books[j] = books[j + 1];
```

```
                }
```

```
                bookCount--;
```

```
                return;
```

```
    }  
    }  
}
```

```
void displayBooks() {  
    for (int i = 0; i < bookCount; i++) {  
        System.out.println("Title: " + books[i].getTitle() + ", Author: " + books[i].getAuthor());  
    }  
}
```

```
void displayBookCounts() {  
    System.out.println("Total Books: " + Book.getCount());  
    System.out.println("Fiction Books: " + FictionBook.fictionCount);  
    System.out.println("Non-Fiction Books: " + NonFictionBook.nonFictionCount);  
    System.out.println("History Books: " + HistoryBook.historyCount);  
    System.out.println("Story Books: " + StoryBook.storyCount);  
}  
}
```

```
public class Main {  
    public static void main(String[] args) {  
        Library library = new Library();  
        library.addBook("To Kill a Mockingbird", "Harper Lee");  
        library.addBook("1984", "George Orwell");  
        library.addBook("The History of World War II", "John Keegan");  
        library.displayBooks();  
        library.removeBook("1984");  
        library.displayBooks();  
        library.displayBookCounts();  
    }  
}
```

}

}