Class Inventory

java.lang.Object
    Inventory

```
public class Inventory
extends java.lang.Object
```

This class represents a simple inventory system for a small bookstore. It stores information about books in stock up to a constant limit on the number of different books. Each book has a title and a current number of copies in stock. Other functionality is described in the method comments.

Field Summary

Fields

Modifier and Type	Field	Description
`static int`	**`MAX_BOOKS`**	The maximum number of unique books that can be stored.

Constructor Summary

Constructors

Constructor	Description
`Inventory``()`	Construct a new Inventory with no books.

Method Summary

All Methods Instance Methods Concrete Methods

Modifier and Type	Method	Description
boolean	**addBook** (java.lang.String title)	Add a new book to the inventory list, but with no copies yet in stock.
boolean	**addBook** (java.lang.String title, int numCopies)	Add a new book to the inventory list, with the given initial inventory.
java.lang.String	**getUnderstockedBooks** (int count)	Return a String representing a list of all books in the inventory list that have a number in stock less than the given number, separated by commas.
boolean	**haveCopy** (java.lang.String title)	Check if the given book has any copies in stock.
int	**newShipment** (java.lang.String title, int numCopies)	Import a new shipment of a book.
Book	**removeBook** (java.lang.String title)	Remove the book with the given title from the inventory list, if it exists.
boolean	**sellCopy** (java.lang.String title)	Sell a copy of a given book, reducing the number in stock by 1, if there is at least 1 copy in stock.

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Field Detail

MAX_BOOKS

public static final int MAX_BOOKS

The maximum number of unique books that can be stored.

See Also:

Constant Field Values

Constructor Detail

Inventory

```
public Inventory()
```

Construct a new Inventory with no books.

Method Detail

addBook

```
public boolean addBook(java.lang.String title)
```

Add a new book to the inventory list, but with no copies yet in stock. Return true if this book was not already in the list and there is room in the array for the new book, false otherwise. An error message should be printed if there is no room in the inventory.

Parameters:

`title` - The title of the book to be added.

Returns:

true if the book is added, false if it was already in the list or there is no more room in the inventory.

addBook

```
public boolean addBook(java.lang.String title, int numCopies)
```

Add a new book to the inventory list, with the given initial inventory. Return true if this book was not already in the list and there is room in the array for the new book, false otherwise. An error message should be printed if there is no room in the inventory.

Parameters:

`title` - The title of the book to be added.

`numCopies` - The number of copies initially in stock.

Returns:

true if the book is added, false if it was already in the list or there is no more room in the inventory.

haveCopy

```
public boolean haveCopy(java.lang.String title)
```

Check if the given book has any copies in stock.

Parameters:

`title` - The title of the book.

Returns:

true if the book is in the inventory list and has a positive number of copies currently in stock, false otherwise.

sellCopy

```
public boolean sellCopy(java.lang.String title)
```

Sell a copy of a given book, reducing the number in stock by 1, if there is at least 1 copy in stock. Return true if inventory is successfully reduced by 1 for the book, false if the book is not found or the number in stock was already 0.

Parameters:

`title` - The title of the book.

Returns:

true if the book is in the inventory list and has a positive number of copies currently in stock, false otherwise.

newShipment

```
public int newShipment(java.lang.String title, int numCopies)
```

Import a new shipment of a book. If the book is not already in the inventory and there is room, add it as a new book. Return the new number of copies in stock.

Parameters:

`title` - The title of the book.

`numCopies` - The number of copies in the shipment.

Returns:

the new total number of copies in stock or 0 if the book was not added to the inventory because there was no space for a new book.

getUnderstockedBooks

```
public java.lang.String getUnderstockedBooks(int count)
```

Return a String representing a list of all books in the inventory list that have a number in stock less than the given number, separated by commas. For example, if there are three books with a number in stock below the given number, your output should be formatted as follows: Java Rules,Javadoc for Everyone,Think Before You Code Note that the titles are separated only by a comma, and that there is no comma before the first or after the last title.

Parameters:

`count` - The threshold below which books are included in this list.

Returns:

A list of books whose inventory is below the given number, or an empty string if no such books are in the inventory.

removeBook

```
public Book removeBook(java.lang.String title)
```

Remove the book with the given title from the inventory list, if it exists. Return the Book object removed if one is removed, null if no matching Book is in the inventory.

Parameters:

`title` - The title of the book to be removed.

Returns:

the Book object removed if one is removed, null if no matching Book is in the inventory.