

PHP programming exercise  
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In the previous exercises and presentations we covered arithmetic operators and object oriented programming. In this exercise we combine these topics.

## **Instruction**

Write your own object oriented PHP Library and Book classes. This library represents a place to store books for reading and borrowing books.

## **Library class**

Create a Library class. It's constructor should accept an array as an argument and this array is stored in a class attributes called "books". The class should contain the following functions:

- a function for reading an existing book. It uses an numeric index value as a function parameter to find the book in the array. The function prints the content of the book
- a function for searching a book by title. It uses a title as a parameter and returns an array of books
- a function for adding a new book to the library
- a function for removing an existing book from the library
- a function that returns the number of books in the library

## **Book class**

Create a Book class. It's constructor should accept the following parameters: title, author and content. The class should contain a function that returns the content of the book.

## **Example**

After implementing the class you should be able to make these calls:

```
$myBooks = array();  
$myBook1 = new Book("Square Foot Gardening", "Mel Bartholomew", "When he created the  
"square foot gardening" method, Mel Bartholomew, a retired engineer and efficiency expert,  
found the solution to the frustrations of most gardeners");  
$myBook2 = new Book("Carrots Love Tomatoes", "Louise Riotte", "Plant parsley and  
asparagus together and you'll have more of each, but keep broccoli and tomato plants far  
apart if you want them to thrive. Utilize the natural properties of plants to nourish the soil,  
repel pests, and secure a greater harvest.");  
array_push($myBooks, $myBook1, $myBook2);  
$myLibrary = new Library($myBooks);
```

```
echo $myLibrary->getNumberOfBooks(); // Displays 2
echo $myLibrary->readBook(0);         // Displays content of first book in array
echo $myLibrary->readBook(10);        // Displays an error
$myLibrary->removeBook(1);             // Removes second book in array
```