<?php

class Book {

public $title;

protected $author;

private $price;

public function \_\_construct($title, $author, $price) {

$this->title = $title;

$this->author = $author;

$this->price = $price;

}

public function getDetails() {

return "Title: {$this->title}, Author: {$this->author}, Price: \${$this->price}"."<br>";

}

public function setPrice($price) {

$this->price = $price;

}

public function \_\_call($method, $args) {

if ($method == 'updateStock') {

echo "Stock updated for '{$this->title}' with arguments: " . implode(', ', $args)."<br>" . PHP\_EOL;

} else {

throw new Exception("Book object has no attribute '$method'");

}

}

}

class Library {

private $books;

public $name;

public function \_\_construct($name) {

$this->name = $name;

$this->books = [];

}

public function addBook(Book $book) {

$this->books[] = $book;

}

public function removeBook($title) {

$booksBeforeRemoval = $this->books;

foreach ($this->books as $key => $book) {

if ($book->title == $title) {

unset($this->books[$key]);

break;

}

}

$booksAfterRemoval = $this->books;

return [$booksBeforeRemoval, $booksAfterRemoval];

}

public function listBooks() {

foreach ($this->books as $book) {

echo $book->getDetails() . PHP\_EOL;

}

}

public function \_\_destruct() {

echo "The library '{$this->name}' is now closed."."<br>" . PHP\_EOL;

}

}

$book1 = new Book("The Great Gatsby", "F. Scott Fitzgerald", 12.99);

$book2 = new Book("1984", "George Orwell", 8.99);

$library = new Library("City Library");

$library->addBook($book1);

$library->addBook($book2);

$book1->setPrice(12.99);

$book2->setPrice(8.99);

$book1->updateStock(50);

echo "Books in the library:"."<br>" . PHP\_EOL;

$library->listBooks();

//book removal

$library->removeBook("1984");

echo "Book '1984' removed in the library."."<br>";

echo "Books in the library after removal:"."<br>" . PHP\_EOL;

$library->listBooks();

unset($library);

?>