

Week 02 : Programming Assignment 5

Due on 2025-02-06, 23:59 IST

Write a Java program to demonstrate the concept of **encapsulation** by modeling a **Book** object. The program should include methods for setting and getting the title and author of the book, and a method to display the details of the book.

Task:

- 1. Create a class **Book** with the following private attributes:
 - **title** (String)
 - **author** (String)
- 2. Include the following methods in the **Book** class:
 - **setTitle(String title)** to set the title of the book.
 - **setAuthor(String author)** to set the author of the book.
 - **getTitle()** to return the title of the book.
 - **getAuthor()** to return the author of the book.
 - **displayDetails()** to print the details of the book in the format

Title: <title>
Author: <author>

- 3. In the **main()** method, create an object of the **Book** class, set the title and author, and then call the **displayDetails()** method to print the book details.

Input:

- The first line contains the title of the book (a single word).
- The second line contains the author's name (a single word).

Output:

Print the details of the book in the format:

Title: <title>
Author: <author>

Example:

Input:

JavaProgramming
JohnDoe

Output:

Title: JavaProgramming
Author: JohnDoe

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	IntroductionToJava Robert	Title: IntroductionToJava\n Author: Robert	Title: IntroductionToJava\n Author: Robert	Passed

The due date for submitting this assignment has passed.
1 out of 1 tests passed.
You scored 100.0/100.

Assignment submitted on 2025-02-03, 19:06 IST

Your last recorded submission was :

```
1 import java.util.Scanner;
2
3 public class W02_P5{
4     public static void main(String[] args){
5         Scanner sc = new Scanner(System.in);
6         String title = sc.next();
7         String author = sc.next();
8
9         // Create a Book object
10        Book book = new Book();
11
12        // Set title and author
13        book.setTitle(title);
14        book.setAuthor(author);
15
16        // Display book details
17        book.displayDetails();
18    }
19 }
20
21 class Book {
22     // Private attributes
23     private String title;
24     private String author;
25
26     // Setter for title
27     public void setTitle(String title) {
28         this.title = title;
29     }
30
31     // Setter for author
32     public void setAuthor(String author) {
33         this.author = author;
34     }
35
36     // Getter for title
37     public String getTitle() {
38         return this.title;
39     }
40
41     // Getter for author
42     public String getAuthor() {
43         return this.author;
44     }
45
46     // Method to display details
47     public void displayDetails() {
48         System.out.println("Title: " + this.title);
49         System.out.print("Author: " + this.author);
50     }
51 }
```

Sample solutions (Provided by instructor)

```
1 import java.util.Scanner;
2
3 public class W02_P5{
4     public static void main(String[] args) {
5         Scanner sc = new Scanner(System.in);
6         String title = sc.next();
7         String author = sc.next();
8
9         // Create a Book object
10        Book book = new Book();
11
12        // Set title and author
13        book.setTitle(title);
14        book.setAuthor(author);
15
16        // Display book details
17        book.displayDetails();
18    }
19 }
20
21 class Book {
22     // Private attributes
23     private String title;
24     private String author;
25
26     // Setter for title
27     public void setTitle(String title) {
28         this.title = title;
29     }
30
31     // Setter for author
32     public void setAuthor(String author) {
33         this.author = author;
34     }
35
36     // Getter for title
37     public String getTitle() {
38         return this.title;
39     }
40
41     // Getter for author
42     public String getAuthor() {
43         return this.author;
44     }
45
46     // Method to display details
47     public void displayDetails() {
48         System.out.println("Title: " + this.title);
49         System.out.print("Author: " + this.author);
50     }
51 }
```