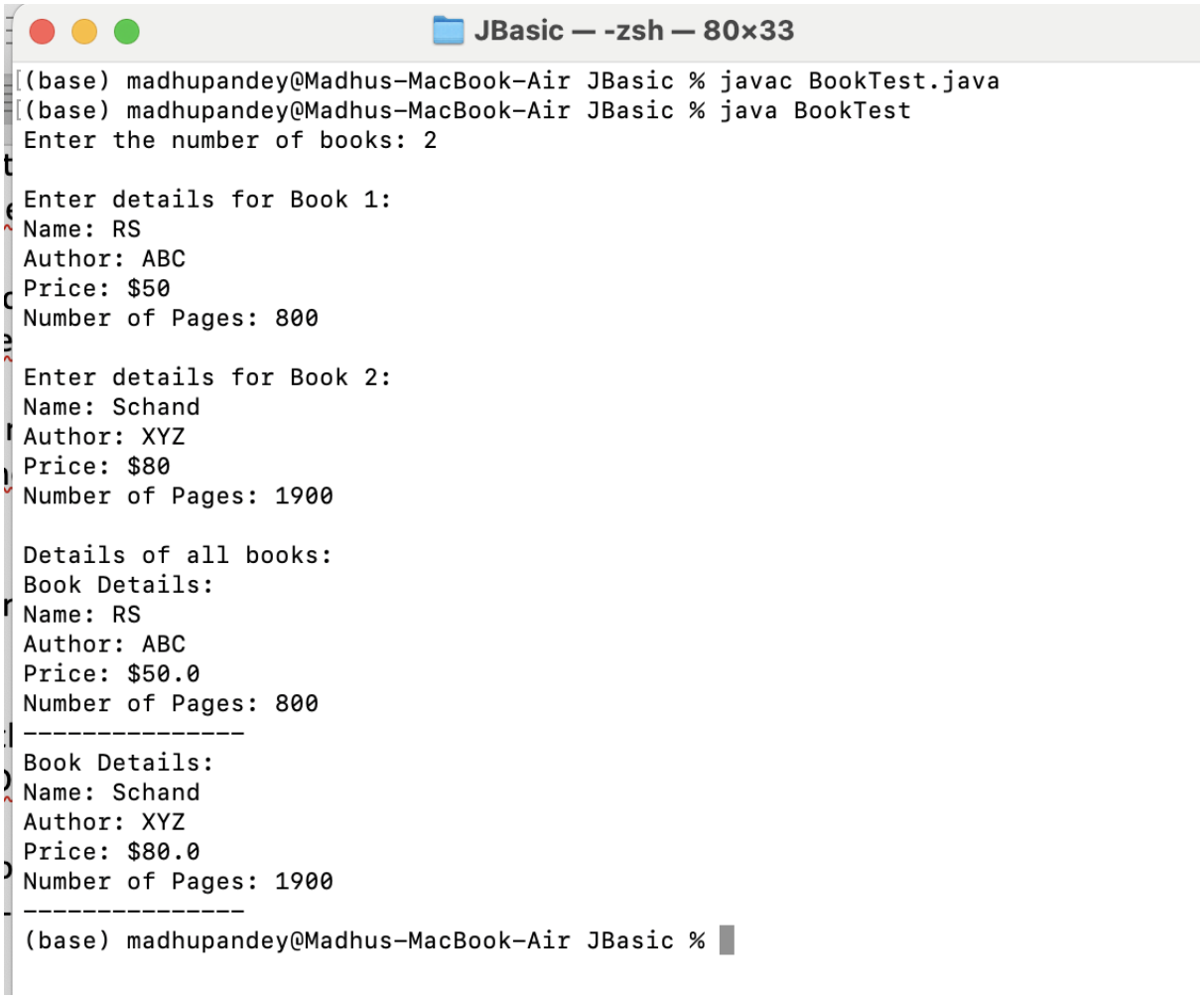
LAB PROGRAM 3

Create a class Book which contains four members: name, author, price, num_pages. Include a constructor to set the values for the members. Include methods to set and get the details of the objects. Include a toString( ) method that could display the complete details of the book. Develop a Java program to create n book objects.

```
import java.util.Scanner;

class Book {
    private String name;
    private String author;
    private double price;
    private int numPages;

    public Book(String name, String author, double price, int numPages) {
        this.name = name;
        this.author = author;
        this.price = price;
        this.numPages = numPages;
    }

    // Setter methods
    public void setName(String name) {
        this.name = name;
    }

    public void setAuthor(String author) {
        this.author = author;
    }

    public void setPrice(double price) {
        this.price = price;
    }

    public void setNumPages(int numPages) {
        this.numPages = numPages;
    }

    // Getter methods
    public String getName() {
        return name;
    }

    public String getAuthor() {
        return author;
    }
```

```
    public double getPrice() {
        return price;
    }

    public int getNumPages() {
        return numPages;
    }

    // toString method to display complete details of the book
    public String toString() {
        return "Book Details:\nName: " + name + "\nAuthor: " + author + "\nPrice: $" + price +
"\nNumber of Pages: " + numPages;
    }
}

public class BookTest {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter the number of books: ");
        int n = scanner.nextInt();

        // Create an array to store n Book objects
        Book[] books = new Book[n];

        // Input details for each book
        for (int i = 0; i < n; i++) {
            System.out.println("\nEnter details for Book " + (i + 1) + ":");
            System.out.print("Name: ");
            String name = scanner.next();

            System.out.print("Author: ");
            String author = scanner.next();

            System.out.print("Price: $");
            double price = scanner.nextDouble();

            System.out.print("Number of Pages: ");
            int numPages = scanner.nextInt();

            // Create a new Book object and store it in the array
            books[i] = new Book(name, author, price, numPages);
        }

        // Display details of all the books
        System.out.println("\nDetails of all books:");
        for (int i = 0; i < n; i++) {
            System.out.println(books[i].toString());
            System.out.println("----------------");
        }
```

```
    }
}
```


JBasic — -zsh — 80×33
(base) madhupandey@Madhus-MacBook-Air JBasic % javac BookTest.java
(base) madhupandey@Madhus-MacBook-Air JBasic % java BookTest
Enter the number of books: 2
Enter details for Book 1:
Name: RS
Author: ABC
Price: $50
Number of Pages: 800
Enter details for Book 2:
Name: Schand
Author: XYZ
Price: $80
Number of Pages: 1900
Details of all books:
Book Details:
Name: RS
Author: ABC
Price: $50.0
Number of Pages: 800

Book Details:
Name: Schand
Author: XYZ
Price: $80.0
Number of Pages: 1900

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