Import java.util.ArrayList;

Import java.util.Scanner;

// Class to represent a Book

Class Book {

Private String title;

Private String author;

Private String isbn;

// Constructor to initialize a Book object

Public Book(String title, String author, String isbn) {

This.title = title;

This.author = author;

This.isbn = isbn;

}

// Getter for title

Public String getTitle() {

Return title;

}

// Getter for author

Public String getAuthor() {

Return author;

}

// Getter for ISBN

Public String getIsbn() {

Return isbn;

}

// Display book information

Public void displayInfo() {

System.out.println(“Title: “ + title);

System.out.println(“Author: “ + author);

System.out.println(“ISBN: “ + isbn);

System.out.println();

}

}

// Main class to manage the Library

Public class LibraryManagementSystem {

Private static ArrayList<Book> library = new ArrayList<>();

Public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

Int choice;

Do {

// Display menu

System.out.println(“Library Management System”);

System.out.println(“1. Add Book”);

System.out.println(“2. Display All Books”);

System.out.println(“3. Search Book by Title”);

System.out.println(“4. Exit”);

System.out.print(“Enter your choice: “);

Choice = scanner.nextInt();

Scanner.nextLine(); // Consume newline

Switch (choice) {

Case 1:

addBook(scanner);

break;

case 2:

displayBooks();

break;

case 3:

searchBook(scanner);

break;

case 4:

System.out.println(“Exiting the system. Goodbye!”);

Break;

Default:

System.out.println(“Invalid choice. Please try again.”);

}

} while (choice != 4);

Scanner.close();

}

// Method to add a book to the library

Private static void addBook(Scanner scanner) {

System.out.print(“Enter the book title: “);

String title = scanner.nextLine();

System.out.print(“Enter the book author: “);

String author = scanner.nextLine();

System.out.print(“Enter the book ISBN: “);

String isbn = scanner.nextLine();

// Create a new book object and add it to the library

Book newBook = new Book(title, author, isbn);

Library.add(newBook);

System.out.println(“Book added successfully!\n”);

}

// Method to display all books in the library

Private static void displayBooks() {

If (library.isEmpty()) {

System.out.println(“No books in the library.”);

} else {

System.out.println(“Books in the Library:”);

For (Book book : library) {

Book.displayInfo();

}

}

}

// Method to search for a book by its title

Private static void searchBook(Scanner scanner) {

System.out.print(“Enter the book title to search: “);

String title = scanner.nextLine();

Boolean found = false;

For (Book book : library) {

If (book.getTitle().equalsIgnoreCase(title)) {

System.out.println(“Book found:”);

Book.displayInfo();

Found = true;

Break;

}

}

If (!found) {

System.out.println(“Book not found.”);

}

}

}