

Use a HashMap to map ISBN numbers to books for quick lookup. Implement functionalities to add, update, and retrieve book details using ISBN.

J BookLibrary.java > ...

```
1  import java.util.HashMap;
2  import java.util.Scanner;
3
4  class Book {
5      private String title;
6      private String author;
7      private String isbn;
8      private double price;
9
10     public Book(String title, String author, String isbn, double price) {
11         this.title = title;
12         this.author = author;
13         this.isbn = isbn;
14         this.price = price;
15     }
16
17     public String getTitle() {
18         return title;
19     }
20
21     public String getAuthor() {
22         return author;
23     }
24
25     public String getIsbn() {
26         return isbn;
27     }
28
29     public double getPrice() {
30         return price;
31     }
32
33     public void setTitle(String title) {
34         this.title = title;
35     }
36
37     public void setAuthor(String author) {
38         this.author = author;
39     }
40
41     public void setPrice(double price) {
42         this.price = price;
43     }
44
45     @Override
46     public String toString() {
```

```

46     public String toString() {
47         return "Title: " + title + ", Author: " + author + ", ISBN: " + isbn
48         + ", Price: $" + price;
49     }
50 }
51
52 public class BookLibrary {
53     private HashMap<String, Book> books;
54
55     public BookLibrary() {
56         books = new HashMap<>();
57     }
58
59     public void addBook(Book book) {
60         books.put(book.getIsbn(), book);
61         System.out.println("Book added: " + book);
62     }
63
64     public void updateBook(String isbn, String title, String author, double price) {
65         Book book = books.get(isbn);
66         if (book != null) {
67             book.setTitle(title);
68             book.setAuthor(author);
69             book.setPrice(price);
70             System.out.println("Book updated: " + book);
71         } else {
72             System.out.println("Book with ISBN " + isbn + " not found.");
73         }
74     }
75
76     public void getBook(String isbn) {
77         Book book = books.get(isbn);
78         if (book != null) {
79             System.out.println("Book details: " + book);
80         } else {
81             System.out.println("Book with ISBN " + isbn + " not found.");
82         }
83     }
84
85     Run | Debug
86     public static void main(String[] args) {
87         BookLibrary library = new BookLibrary();
88         Scanner scanner = new Scanner(System.in);
89
90         while (true) {
91             System.out.println(x:"Library Menu:");

```

```

91     System.out.println(x:"1. Add Book");
92     System.out.println(x:"2. Update Book");
93     System.out.println(x:"3. Get Book Details");
94     System.out.println(x:"4. Exit");
95     System.out.print(s:"Choose an option: ");
96     int choice = scanner.nextInt();
97     scanner.nextLine(); // Consume newline
98
99     switch (choice) {
100         case 1:
101             System.out.print(s:"Enter title: ");
102             String title = scanner.nextLine();
103             System.out.print(s:"Enter author: ");
104             String author = scanner.nextLine();
105             System.out.print(s:"Enter ISBN: ");
106             String isbn = scanner.nextLine();
107             System.out.print(s:"Enter price: ");
108             double price = scanner.nextDouble();
109             scanner.nextLine(); // Consume newline
110             Book book = new Book(title, author, isbn, price);
111             library.addBook(book);
112             break;
113         case 2:
114             System.out.print(s:"Enter ISBN of the book to update: ");
115             String isbnToUpdate = scanner.nextLine();
116             System.out.print(s:"Enter new title: ");
117             String newTitle = scanner.nextLine();
118             System.out.print(s:"Enter new author: ");
119             String newAuthor = scanner.nextLine();
120             System.out.print(s:"Enter new price: ");
121             double newPrice = scanner.nextDouble();
122             scanner.nextLine(); // Consume newline
123             library.updateBook(isbnToUpdate, newTitle, newAuthor, newPrice);
124             break;
125         case 3:
126             System.out.print(s:"Enter ISBN of the book to get details: ");
127             String isbnToGet = scanner.nextLine();
128             library.getBook(isbnToGet);
129             break;
130         case 4:
131             System.out.println(x:"Exiting...");
132             scanner.close();
133             return;
134         default:
135             System.out.println(x:"Invalid choice. Please try again.");

```

PROBLEMS ①

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

```
PS C:\Users\SWETHA BENNY\Documents\javaProject> javac BookLibrary.java
>> java BookLibrary
>>
Library Menu:
1. Add Book
2. Update Book
3. Get Book Details
4. Exit
Choose an option: 1
Enter title: rain
Enter author: ram
Enter ISBN: 56790
Enter price: 499
Book added: Title: rain, Author: ram, ISBN: 56790, Price: $499.0
Library Menu:
1. Add Book
2. Update Book
3. Get Book Details
4. Exit
Choose an option: 2
Enter ISBN of the book to update: 56790
Enter new title: rain
Enter new author: ram n
Enter new price: 499
Book updated: Title: rain, Author: ram n, ISBN: 56790, Price: $499.0
Library Menu:
1. Add Book
2. Update Book
3. Get Book Details
4. Exit
Choose an option: 3
Enter ISBN of the book to get details: 56790
Book details: Title: rain, Author: ram n, ISBN: 56790, Price: $499.0
Library Menu:
1. Add Book
2. Update Book
3. Get Book Details
4. Exit
Book details: Title: rain, Author: ram n, ISBN: 56790, Price: $499.0
Library Menu:
1. Add Book
2. Update Book
3. Get Book Details
4. Exit
Book details: Title: rain, Author: ram n, ISBN: 56790, Price: $499.0
Library Menu:
1. Add Book
2. Update Book
3. Get Book Details
4. Exit
```