

## Detailed Explanation of issueBook() Function

Function Definition:

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void issueBook(int index)

- Takes an index (book number) as a parameter to identify which book to issue.

Line-by-Line Explanation:

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1. if (index >= 0 && index < bookCount && !books[index].isIssued)

- Ensures index is within bounds (0 to total books - 1).
- Checks if the book has not already been issued.

2. books[index].isIssued = true;

- Marks the selected book as "issued" by setting its isIssued flag to true.

3. cout << "Book issued successfully.";

- Displays confirmation to the user.

4. else { cout << "Book cannot be issued."; }

- Shows an error if the book index is invalid or already issued.

How it Works in the Program:

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1. User views books and sees index numbers.
2. Chooses option 3 (Issue Book).
3. Enters the index of the desired book.
4. If the book is available, it's marked as issued. Otherwise, an error message is shown.

Example Output:

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- Enter book index to issue: 2
- Book issued successfully.

OR

- Enter book index to issue: 2
- Book cannot be issued.

Presentation Summary:

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The `issueBook()` function checks if a book exists and is available. If valid, it marks the book as issued and confirms it to the user. This demonstrates validation, control structures, and real-world logic.

Real-World Analogy:

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It's like going to a library. The librarian checks if the book exists and if it's on the shelf. If yes, they hand it to you and mark it as borrowed. If not, they tell you it's unavailable. That's what this function does in code.