Domain: Library API

Purpose: To manage a collection of books, allowing users to add books, view a list of all books, and retrieve details of a specific book by ID.

A diagram of a data flow

Description automatically generated

The Library API is designed to manage a collection of books. It allows users to add new books, retrieve a list of all books, and view details of a specific book by its unique ID. This API can be used by library staff or book enthusiasts to maintain an organized catalog of books.

The top flow line is for the operation createBook. The user sends a request with book details, the server validates the input and saves it to the database while returning a new Book ID to the user.

The middle line is for findAllBooks. The user sends a request with optional filters, like genre or author, the server searches the database using those parameters to find matching books, then respond with a list of those books.

The last line is for findBookById. The user sends a request with a specific bookId, the server will validate the bookId and either return with the book details or an error message after it has searched the database for that bookId.

Using JSON for input and output ensures compatibility with most front-end and back-end system. Using clear and intuitive operation names makes it easier for the developer to understand. And a validation process after the user inputs ensures data integrity.

The goals of this API is to simplify book catalog management, provide clear feedback for users such as error messages, and offer flexibility with filtering options for viewing books.