**Project Name: Book Catalog BackEnd**

Create a RESTful API for managing a catalog of books. The data will initially be read from a file CSV, and you'll use LINQ to query and manipulate the data.

**Project Description:**

* Your API will provide endpoints to:
  + Get all books
  + Get books by filters (author, genre, year, etc.)
  + Add a new book
  + Update existing book details
  + Delete a book
* The data source will be a file containing a list of books with fields like:
  + Book ID
  + Title
  + Author
  + Genre
  + Published Year
  + Price
* The API will load the file data into memory on startup and use LINQ queries to filter or search through the books.
* When a change is made (add/update/delete), the file should be updated accordingly.

**Key Features to Implement:**

1. **File Reading and Writing**
   * Read the book list from a CSV file at startup.
   * Save changes back to the file after any modification.
2. **LINQ Queries**
   * Use LINQ to filter books by author, genre, or published year.
   * Implement sorting (e.g., sort by price or year).
3. **REST API Endpoints**
   * GET /books - Get all books
   * GET /books/{id} - Get book by ID
   * GET /books?author=xxx&genre=yyy - Filtered book list
   * POST /books - Add a new book
   * PUT /books/{id} - Update a book
   * DELETE /books/{id} - Delete a book
4. **Validation**
   * Validate inputs for new and updated books.
5. **Pagination**
   * Add pagination for the GET /books endpoint.

**Tools/Technologies:**

* .NET Core Web API
* LINQ for data querying
* CSV file for data storage (choose one)

**Estimation: 2 Days**

**Time Deliver: 14/08/2025**