

Sure! Here is an updated **README.md** with a clear **How to Run the FastAPI Server** section added.

You can copy/paste the entire file.

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## FastAPI Book API

This is a simple **FastAPI CRUD API** for managing a list of books.  
It includes endpoints for:

- Getting all books
- Getting a book by ID
- Adding a new book
- Deleting a book

Perfect for beginners learning FastAPI.

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## Features

- **GET /books** – Get all books (optional `limit` parameter)
  - **GET /books/{id}** – Get one specific book
  - **POST /books** – Add a new book
  - **DELETE /books/{id}** – Delete a book by ID
- 

## Project Structure

```
project/  
| — main.py      # FastAPI application  
| — README.md    # Documentation
```

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## Requirements

- Python 3.10+
- FastAPI
- Uvicorn (server)
- Pydantic (included with FastAPI)

Install required packages:

```
pip install fastapi uvicorn
```

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## How to Run the FastAPI Server

1. Make sure you're inside the same folder as `main.py`.
2. Start the FastAPI development server:

Developer mode: `fastapi dev main.py`

Production mode: `fastapi run main.py`

Meaning of the command:

- **fastapi** → instance name
- **dev** → mode
- **main.py** → your Python file ([main.py](#))

Option:

- **--port** → port number
- **--host** → host domain

3. After the server starts, open the browser:

### API Base URL

<http://127.0.0.1:8000>

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## API Endpoints

### ✓ GET /books

Get all books.

GET `http://127.0.0.1:8000/books`

Optional limit:

GET `/books?limit=2`

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### ✓ GET /books/{book\_id}

Example:

GET `/books/1`

Response:

```
{
  "id": 1,
  "title": "Mehdi",
  "author": "Mehdi Orang",
  "pages": 123
}
```

---

### ✓ POST /books

Add a new book.

Request body:

```
{
  "title": "New Book",
  "author": "Hitomi",
  "pages": 200
}
```

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### ✓ DELETE /books/{book\_id}

Delete a book by ID:

DELETE /books/3

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## Known Issues (Fix Needed)

Your delete function has two bugs:

✗ `if delb[id] == book_id:` → wrong  
✓ Should be:

`if delb["id"] == book_id:`

✗ `pop(delb)` is incorrect  
✓ Needs to pop by index.

If you want, I can rewrite the function correctly.

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## Final Notes

This project is great for learning:

- FastAPI basics
- Query parameters & path parameters
- Pydantic request validation
- Simple CRUD operations

If you'd like, I can help you:

- fix the delete function
- add Swagger examples
- add a database (SQLite + SQLAlchemy)
- organize the project into folders

Just let me know!

