

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
```

---

## 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  
}
```

---

### 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!

