# ✏️ Python Developer Assignment (1+ Years Experience)

## Objective:

Build a simple **Booking API** for a fictional fitness studio using Python. The goal is to evaluate your coding skills, design thinking, and understanding of backend development principles.

## 📌 Requirements:

### Scenario:

A fitness studio offers classes like Yoga, Zumba, and HIIT. Clients should be able to view available classes and book a spot.

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## 🎯 Tasks:

### 1. API Endpoints to Implement:

- GET /classes

    - Returns a list of all upcoming fitness classes (name, date/time, instructor, available slots)

- POST /book

    - Accepts a booking request (class_id, client_name, client_email)

    - Validates if slots are available, and reduces available slots upon successful booking

- GET /bookings

    - Returns all bookings made by a specific email address

## 🛠️ Technical Expectations:

- Use **Python** with any backend framework of your choice (**Django**, **Flask**, or **FastAPI** preferred)

- Use an in-memory DB like SQLite or store data in a file (no need to set up a full DB)

- Write **clean, modular, and well-documented code**

- Timezone management: Classes created in IST and on change of timezone all the slots should be changed accordingly

- Handle **errors and edge cases** (e.g., overbooking, missing fields)

- Add basic **input validation**, logging, or unit tests

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## 📦 Deliverables:

- A public GitHub repo or zip file containing:

    - Source code

    - Sample input data or seed data

    - README with setup instructions and sample cURL or Postman requests

Submit a Loom Video with a walkthrough of the entire assignment (Mandatory)
Timeline: Submit within 3 working days

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## ✅ Evaluation Criteria:

- Code readability and structure

- API design and functionality

- Error handling and validation

- Use of good practices (DRY, modularity, naming, etc.)

- Bonus: Basic tests, thoughtful documentation, creativity