**Task: Advanced Medical Appointment Scheduler**

**Objective:**  
Develop a RESTful API service using .NET 8 that manages medical appointments with an advanced feature to detect and resolve scheduling conflicts automatically.

**Requirements:**

1. **Environment:**
   * Use .NET 8 for building the API.
2. **API Endpoints:**
   * POST /appointments: Schedule a new appointment, automatically check for conflicts.
   * GET /appointments: Retrieve a list of all appointments.
   * GET /appointments/{id}: Retrieve a specific appointment by ID.
   * PUT /appointments/{id}: Update the details of a specific appointment.
   * DELETE /appointments/{id}: Cancel an appointment.
3. **Appointment Model:**
   * Each appointment should have the following properties:
     + Id (int)
     + PatientName (string)
     + HealthcareProfessionalName (string)
     + AppointmentDate (DateTime)
     + Duration (int, in minutes)
     + Description (string)
4. **Conflict Detection and Resolution:**
   * Implement logic to detect scheduling conflicts (e.g., overlapping appointments).
   * Automatically suggest alternative times to resolve conflicts.
5. **Testing:**
   * Provide unit tests for the service logic, including conflict detection and resolution.
6. **Documentation:**
   * Provide a README file with instructions on how to build and run the application.
   * Include examples of API requests and responses.

**UI / Interaction:**  
 You are free to use **any user interface or client** to demonstrate the functionality of your API.

**Development Guidelines:**  
 We highly encourage to apply clean code practices, SOLID principles, and relevant design patterns where appropriate. Clear separation of concerns, thoughtful architecture, and readable, maintainable code are just as important as functional correctness. Demonstrating these practices will help us better understand your approach to writing quality software.