Solid Web API Assessment

Description

You are tasked with creating a backend system for a doctor appointment booking application. The system will be designed for a specific single doctor and should handle the logic behind managing and booking appointments. The project focuses on implementing the necessary APIs and functionality to meet the specified business requirements.

Business Requirements:

Your application should adhere to the following business requirements:

1. **Doctor Availability:**
    a. As a doctor, I want to be able to list my slots and add new slot
    b. As a doctor, I want to be able to add new slot
    c. A single time slot should have the following:
        i. Id: Guid
        ii. Time: Date → 22/02/2023 04:30 pm
        iii. DoctorId: Guid
        iv. DoctorName: string
        v. IsReserved: bool
        vi. Cost: Decimal

2. **Appointment Booking:**
    a. As a Paitnet I want to be able to view all doctors' available (only) slots
    b. As a Paitnet I want to be able to book an appointment on a free slot
    c. An Appointment should have the following:
        i. Id: Guid
        ii. SlotId: Guid
        iii. PatientId: Guid
        iv. PatientName: string
        v. ReservedAt: Date

3. **Appointment Management: (optional)**
    a. As a Doctor, I want to be able to view my upcoming appointments.
    b. As a Doctor, I want to be able to mark appointments as completed or cancel them if necessary.

4. **Data Persistence:**
    a. Use Entity Framework Core (EF Core) as the data access technology to interact with the database.
    b. Design and implement the necessary models and database context to store appointment details and any additional required information.

Deliverables

Push the complete source code of your .NET Core application to a source code repository of your choice (e.g., GitHub, GitLab, Bitbucket).

Ensure that your commits are done incrementally and reflect your progress throughout the development process.

Make regular and meaningful commitments to showcase your implementation approach and demonstrate how you have broken down the project into smaller steps.

Evaluation Criteria

Your project will be evaluated based on the following criteria:

1. Correct implementation of all the required business requirements.
2. Proper use of relevant technologies, such as REST APIs and EF Core.
3. Code quality, including readability, maintainability, and adherence to best practices.
4. Effective implementation of the business logic and error handling.

Good luck!