Technical assignment for a candidate for an internship developer position at the BDT team

Task Description

Create a web application to view and book hotel rooms and view my bookings.

Functional requirements

- View list of hotels. Picture, hotel name, and location must be included.
- Search a list by hotel location
- On hotel click. User can select options (room type, breakfast) and book a hotel room.
- View my bookings as a list. It should be on a separate page.

Calculation rules:

- Room rate is determined by room type: Standard (€100/night), Deluxe (€150/night), Suite (€200/night).
- Cleaning fee: €20 per stay, applied to all bookings.
- Breakfast option: €15 per person per day.

Technical requirements

- The **back end** should be built using ASP.NET Core and an EF Core in-memory database to store hotels and bookings.
- The **front end** should be built using React and can use a modern UI library such as Bootstrap, Material UI, Tailwind, etc.
- All calculation logic must be implemented in the back-end

Nice to have (optional)

- Unit tests in the backend.
- Web app deployed and accessible via a public URL.

Evaluation criteria

- Functionality of the web app (could not be 100% finished).
- Clean code.
- Desicions on architecture for both the back end and front end.
- Tools used to build this app.
- Design patterns.