

BookMySlot

Assumptions Made

- Users creating events are trusted and responsible for adding valid time slots in ISO 8601 format.
- The backend and frontend are deployed separately but communicate via REST API.
- Email uniqueness is assumed for identifying individual users for booking.
- Time zone conversions rely on client-side Luxon library, assuming user devices report accurate local time.
- The app does not handle user authentication beyond simple booking identification by email.
- The system assumes a single instance of backend service without horizontal scaling or load balancing.
- Database connection URL and environment variables are securely stored and managed on the deployment platform.

Areas for Improvement

- **User Authentication & Authorization:** Add user login/signup with roles (admin, user) for better security.
- **Booking Notifications:** Implement email/SMS notifications for booking confirmation and reminders.
- **UI/UX Enhancements:** Improve accessibility, mobile responsiveness, and add more intuitive booking flow.
- **Slot Management:** Enable editing and deleting of events and slots by the event creators.
- **Scaling:** Support backend scaling with load balancing and database optimization.
- **Testing:** Add comprehensive unit, integration, and end-to-end tests for robustness.
- **Analytics:** Provide event creators with booking statistics and user insights.
- **Error Handling:** More detailed error reporting and recovery mechanisms on frontend and backend.
- **Multi-language Support:** Support internationalization/localization for wider audience reach.