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Hall Booking System

Problem Statement :

The process of booking halls for events such as meetings, conferences, or functions is often time-consuming and inefficient when managed manually. Users have to physically visit the venue to check availability, negotiate timings, and confirm bookings. This creates inconvenience, miscommunication, and the risk of double bookings.

To overcome these issues, a Hall Booking System is required that allows users to conveniently view hall categories, check availability, book slots online, make secure payments, and receive booking confirmations digitally. At the same time, the system should provide administrators with tools to manage users, bookings, payments, and contact queries efficiently.

This project aims to build a web-based Hall Booking System for a single center offering three types of halls (Small, Medium, Large), with two main user roles: Admin and Normal Public User.

User Roles :

1. Admins - Top Level User
2. Customers(End Users) – Level-2
3. Guest User – Level-3

Functionalities :

1. A user visits the website.
2. The user can log in with valid credentials.
3. If the user does not have an account, they can register (sign up).
4. After successful sign up, the user is redirected to the login page.
5. If the user forgets the password, they can reset it using the "Forgot Password" option.

6. Once logged in, the user can navigate to different sections such as Home, About, Category, Contact, Profile, and Start Booking.
7. Now it asks the users to fill up the information which is under the profile section if they need to edit/modify.
8. The user can view available hall categories (Small, Medium, Large) and the halls under each category.
9. The user can click on a hall to view its details such as seating capacity, available projectors, and cost per hour.
10. The user can start the booking process by clicking on the Start Booking option.
11. The user selects the booking date and hall type.
12. The system shows slot availability from 8 AM to 8 PM.
13. Booked slots are marked unavailable, and free slots are shown as available.
14. If no slots are available, a message is displayed indicating unavailability.
15. These availability are processed by Scheduling Algorithms.
16. The user selects a start time and end time for the booking.
17. The booking form is displayed to collect details like name, email, mobile, address, and purpose of booking.
18. The user can also specify if beverages are required and select the respective beverages.
19. Then the user is select the available menu's based on their beverages type.
20. The user must agree to terms and conditions before proceeding.
21. After submitting the form, the user is redirected to the payment page.
22. The user payment is made through Razorpay.
23. On successful payment, the booking is confirmed.
24. An invoice with booking details is generated.
25. An Contract form also sent once the order is placed, it contains of all agreement regarding the hall details.
26. After completion of the booking the invoice and the contract form will be sent via email to the respective customer.
27. The booked halls are directly stored to the history section, and show the current Status.
28. Customer can able cancel the booked rooms based on the policy specified.
29. Customer can also able to Reschedule the booked hall, based on their required by the time and the date.
30. Customer cannot able to change the booked hall or category once booked.

31. The admin logs in with valid credentials.
32. After login, the admin is taken to the admin dashboard.
33. The admin can view all bookings in card format.
34. Each booking shows details such as user name, hall type, date, and time.
35. The admin can search or filter bookings by user name, date, or time.
36. The admin can approve or cancel bookings if required.
37. The admin can process cancellation and refund requests raised by customers.
38. The admin can view all contact requests submitted by users.
39. The admin can also view all the booking enquires of the users and reply them.
40. The admin can view and update their profile details.
41. The admin can manage hall data.
42. The admin can able to add or remove the halls as well as they can able to change the status of the hall.
43. The admin can send notifications (e.g., booking confirmations, reminders, cancellations, backup alerts).
44. The admin can generate and download booking reports (by user, hall, date, or status).
45. The admin can initiate a complete system backup (users, bookings, contacts, food/beverage orders, reports, content).
46. The admin can restore data in case of failures or accidental deletion.
47. The system shows a disclaimer alert before restoring.
48. The system checks available storage before backup and notifies the admin if memory is exceeded.
49. The admin can configure automatic backup schedules (daily/weekly/monthly).
50. Backup logs are available showing when and who performed backup/restore.
51. The admin can download backup files for offline storage.
52. The admin can restore specific modules (e.g., only bookings or only content).
53. The system ensures data integrity and avoids duplication during restore.

Modules :

User Management

Profile-Management:

Admins:

- Can update their own profile details.

Customers (End-Users):

- Can view, create, and edit their own account.
- Can delete their own account.

Authentication & Authorization:

- Login functionality available for both Admins and Customers.
 - Registration/Sign-up option for new Customers.
 - Forgot Password & Reset Password support via email/mobile OTP.
 - Session management (login, logout, auto logout after inactivity).
 - Admins have full access across all modules.
 - Customers only have access to their own profile, booking, food/beverage, and viewing content.
 - Customers cannot access Admin-only modules.
 - Access validation checks performed before executing sensitive operations to ensure only authorized roles can perform them.
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Booking Management

Admins:

- Can view all bookings in card-based format.
- Can search/filter bookings by User Name, Date, Time, or Hall Type.
- Can approve or cancel bookings.
- Can define refund policies (full refund, partial refund, or no refund based on policy).
- Can manage hall availability and resolve scheduling conflicts.

Customers (End-Users):

- Can see available slots and book them.
 - Can cancel a booking within the allowed cancellation period.
 - Can track refund progress (initiated, processing, completed).
 - Can view booking history and current booking status.
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Hall Management :

Admins:

- Can create, edit, or update hall details (pricing, seating capacity, facilities, availability, etc.).
- Can mark halls as unavailable during maintenance, events, or administrative needs.
- Can update hall images, videos, and virtual tours for customers to view.

Customers (End-Users):

- Can view all available halls with complete details (capacity, cost, facilities).
- Can filter halls based on availability, size, or pricing.

Guest User:

- Can only view content of the hall details and pricing.
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Query Management :

Admins :

- Can view and respond to all the queries sent by the customers and the guest users.
- Can also delete the queries from the DB.
- Can also view and respond to the booking enquiries of the customer.

Customers (End-Users):

- Can sent the query to the admins.
- Can view the query response sent by the admins via mail.
- Can sent the booking enquires to the admins of respective bookings.

Content Management

Admins:

- Can create, update, or delete content pages (About Us, Terms & Conditions, FAQs, Policies).
- Can manage homepage elements such as banners, sliders, room images, videos, and virtual tours.
- Can manage blogs, news.

Customers (End-Users):

- Can view content pages (About Us, FAQs, Policies).
- Can read room news, blogs, or announcements.

Guest User:

- Can able to view the content pages(About Us, FAQs, Policies).
 - Can read room news, blogs, or announcements.
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Notification Management :**Admins:**

- Receive alerts for every new booking made by customers.
- Get notifications for new contact requests submitted by users.
- Receive alerts if backup storage capacity is exceeded.
- Receive reminders for scheduled system tasks such as backups or report generation.

Customers (End-Users):

- Receive booking confirmation notifications.
 - Receive booking cancellation/modification alerts.
 - Receive refund status updates
 - Receive notifications when invoices are generated and emailed.
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Report Management

Admins:

- Can download bulk booking reports.
- Can download specific user reports.
- Can search/filter reports by date or name.

Customers (End-Users):

- Can download/print booked slots.
 - Can download/print invoices.
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Backup/Restore Management

Admins:

- Can initiate full system backup (users, bookings, contacts, food/beverage, reports, content).
- Can restore data in case of failure or deletion.
- Can schedule automatic backups (daily, weekly, monthly).
- Can view backup logs (who/when performed backup/restore).
- Can download backups for offline storage.
- Can restore specific modules instead of full system.

Customers (End-Users):

- No access.