**CAPSTONE PROJECT REPORT**

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# **Tripease: Smart Hotel & Tourism Management System**

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## **Abstract**

The Tripease Project is a smart, web-based hotel and local tourism management system built using Python (Django), HTML, CSS, Tailwind CSS, and PostgreSQL. This system integrates hotel room management and local tour booking into a single dynamic platform to simplify operations and enhance the overall guest experience. Tripease addresses the challenges faced by hotel managers and travelers by providing a centralized portal for managing hotel bookings and local tourism activities. The platform supports multiple user roles, including Admins, Hotel Staff, and Guests.

Hotel managers and staff can add and update room listings with details like room type, amenities, pricing, and availability. Guests can easily browse available rooms, check availability in real-time, make secure reservations, and manage their bookings online. The system also enables guests to book local tours and activities, creating an all-in-one travel solution.Admins have the capability to monitor system usage, manage hotel profiles, oversee bookings, and generate reports through an intuitive dashboard. Tripease helps automate routine tasks, reduce manual errors, and deliver a smooth, reliable experience for both hotel operators and guests, ultimately boosting efficiency and customer satisfaction.

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## **Introduction**

Tripease is an integrated hotel and tourism web portal designed to simplify and automate the management of hotel rooms, bookings, tourist services, and local tours — all under one digital platform.

Unlike a simple travel/tourism page that just shows travel packages or static tourist information, Tripease acts like a full management system for both hotel operations *and* tourist service management.

Users can:

* Book hotel rooms based on real-time availability.
* See detailed room info.
* Manage or cancel bookings.
* Explore local tours and activities.
* Staff can update rooms, manage bookings, and add new tour packages.

It combines the needs of hotels (room management, booking, staff dashboard) *and* tourists (discover, book, manage tours) — making it smarter than a normal static tourist site.

### Why choose Tripease over a normal tourist page?

A normal tourist website often just displays static info: famous places, images, package rates, contact form.  
But Tripease offers dynamic, real-time operations:

* Live room availability and updates
* Booking system integrated with PostgreSQL database.
* Staff-only admin features (CRUD operations)
* Dynamic tours listing
* Detailed information for each room/tour
* Role-based navigation (staff vs. guest)
* Responsive, modern UI using Tailwind CSS

This makes Tripease much closer to real-world hotel management systems used by travel startups, hotels, or resorts.

## **Tools & Technologies**

* **Frontend:** HTML, CSS, Tailwind CSS, JavaScript
* **Backend:** Python, Django
* **Database:** PostgreSQL (managed via pgAdmin)
* **IDE:** VS Code / PyCharm
* **Version Control:** Git, GitHub

**Modules**

## Major Modules

1. **Hotel Management**

**Room Management:**

* Add, edit, delete rooms
* Mark rooms as available/unavailable
* View room listings & details

**Booking Management:**

* Book rooms for specific dates
* Cancel or update bookings
* View customer booking history

**Order Management (Room Service):**

* Add food/service orders.
* Update or delete orders.
* Generate total bills for customers.

**Stock Management:**

* Add and track stock items (food, linen, supplies)
* Monitor stock usage with orders.
* Generate low stock alerts

**2.Tourism Management**

**Tour Packages:**

* Add, edit, delete tour packages
* List and display package details
* Filter tours by category or destination

**Tour Booking:**

* Book tours for customers
* Manage tour booking details
* Cancel or modify tour bookings

**3.Admin & Reports**

**Dashboard:**

* Summarized data (rooms available, bookings made, total income)

**Reports:**

* Booking history reports
* Sales reports
* Stock & inventory reports

**User Management:**

* Manage staff roles and permissions
* Control who can add/edit/delete content

## Minor Modules

1. **Feedback & Ratings**

* Guests can rate rooms and hotel services.
* Admin can view, moderate, and respond to guest reviews.

1. **Notifications**

* Automatic email/SMS alerts for booking confirmations and reminders.
* Notify guests about booking status updates.

1. **Support**

* Contact hotel management directly for help.
* FAQs section to answer common guest queries.

1. **Authentication**

* User login & registration.
* Staff/admin login with role-based access.
* Profile update & password change options.

1. **Navigation**

* Dynamic navigation bar with context-aware links (login/logout, rooms, bookings, tours).
* Fully responsive pages using Tailwind CSS for smooth access on all devices.

1. **Footer & Branding**

* Static footer showing project name, copyright.
* Consistent branding and contact details.
* Layout adapts to mobile, tablet, and desktop screens.

1. **Payment**

* Guests pay for bookings/orders.
* System records amount, date, mode, and status.

1. **Cart**

* Guests add rooms/tours/services to a cart before checkout.
* Cart items convert to bookings when payment is done.

## **Database Tables**

**1.Guest Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| GuestID | Integer | Unique Guest ID |
| Name | Varchar | Guest’s full name |
| Email | Varchar | Guest’s email address |
| Password | Varchar | Login password (hashed) |
| Phone | Varchar | Contact number |

**2.Room Table**

|  |  |  |
| --- | --- | --- |
| Field Name | Data Type | Description |
| RoomID | Integer | Unique Room ID |
| RoomType | Varchar | Type of Room (Deluxe, Suite, etc.) |
| Description | Text | Room description/details |
| PricePerNight | Decimal | Price per night |
| Status | Varchar | Available / Booked |

**3. Reservation Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| ReservationID | Integer | Unique Reservation ID |
| GuestID | Integer | Linked Guest ID |
| RoomID | Integer | Linked Room ID |
| CheckInDate | Date | Check-in date |
| CheckOutDate | Date | Check-out date |
| Status | Varchar | Reservation status (Confirmed, Cancelled) |

**4. Payment Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| PaymentID | Integer | Unique Payment ID |
| ReservationID | Integer | Linked Reservation ID |
| Amount | Decimal | Total payment amount |
| PaymentDate | Date | Date of payment |
| PaymentMode | Varchar | Mode (Card, UPI, Cash) |

**5.Admin Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| AdminID | Integer | Unique Admin ID |
| Name | Varchar | Admin/Staff Name |
| Email | Varchar | Admin email |
| Password | Varchar | Login password (hashed) |
| Field Name | Data Type | Description |
| AdminID | Integer | Unique Admin ID |

**6.Feedback Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| FeedbackID | Integer | Unique Feedback ID |
| GuestID | Integer | Linked Guest ID |
| RoomID | Integer | Linked Room ID |
| Rating | Integer | Rating given by guest (1–5) |
| Comment | Text | Feedback comment |

## **ER Diagram**

**Entities:**

* **Guest**
* **Room**
* **Reservation**
* **Payment**
* **Admin**
* **Feedback**

A white board with text on it

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Description :

\*Tripease\* is a full-featured travel booking web application built with Django. It allows users to plan, book, and manage all aspects of their travel in one place—including flights, hotels, holiday packages, cabs, and more. It also provides user account management, notifications, payments, and admin features.

Key Features and Modules

1. User Authentication & Profiles

- Sign Up / Login / Logout: Users can register, log in, and log out securely.

- Profile Management: Users can view and edit their profile (username, email, etc.).

- User Roles: There are roles like guest, staff, and admin (for permissions and admin panel).

2. Booking System

- Flights: Search for flights, view details, and book tickets.

- Hotels: Browse hotels, view rooms, and book rooms for specific dates.

- Holiday Packages: Explore and book curated holiday/tour packages.

- Cabs: Search for cabs between cities or locations and book them.

- Wishlist & Cart: Add rooms, flights, or packages to a wishlist or cart for later booking.

3. Payments

- Multiple Payment Methods: Users can pay for bookings using credit card, debit card, UPI, or net banking.

- Payment History: Users can view their payment history.

- Payment Notifications: Users are notified of new/unviewed payments.

4. Notifications

- Booking Updates: Users receive notifications for booking confirmations, cancellations, etc.

- Badge Counts: Unread notifications and unviewed payments are shown as badges in the navigation bar.

- Auto-clear: Badges clear automatically when the user views notifications or payments.

5. Booking Management

- My Bookings: Users can see all their bookings (hotels, flights, cabs, holidays) in one place.

- Cancel Bookings: Users can cancel hotel bookings, which updates room availability and notifies the user.

- Booking Status: Cancelled bookings are hidden from the “My Bookings” page.

6. Admin Panel

- User Management: Admins can view and manage users.

- Booking Oversight: Admins can see all bookings and manage them.

- Feedback & Support: Admins can view user feedback and support tickets.

7. Support & Feedback

- Support Tickets: Users can raise support tickets for help.

- Feedback: Users can submit feedback about their experience.

8. Other Features

- Offers Carousel: Home page highlights special offers.

- Popular Destinations: Showcases trending travel spots.

- Responsive UI: Modern, mobile-friendly design using Tailwind CSS.

- Media Management: Handles images for rooms, packages, etc.

User Flow

1. User Registration/Login:

The user signs up or logs in to their account.

2. Browsing & Searching:

The user browses flights, hotels, holidays, or cabs. They can search by city, date, etc.

3. Adding to Cart/Wishlist:

The user can add items to their cart or wishlist for later booking.

4. Booking:

The user selects an item (flight, hotel, cab, holiday) and proceeds to book it by filling in required details (dates, number of people, etc.).

5. Payment:

After booking, the user is redirected to a payment page to choose a payment method and complete the transaction.

6.Confirmation & Notifications:

Upon successful payment, the booking is confirmed, and the user receives a notification.

7. Managing Bookings:

The user can view all their bookings, cancel hotel bookings if needed, and see their payment history.

8. Profile & Support:

The user can edit their profile, view notifications, and raise support tickets if they need help.

## Technical Structure

- Django Apps: The project is split into apps like authentication, hotel, flights, cart, payment, notifications, support, etc.

- Templates: Uses Django templates for rendering HTML pages.

- Models: Each app has models for its data (e.g., Booking, FlightBooking, TourBooking, CabBooking, Payment, Notification).

- Views: Each app has views for handling requests (e.g., booking, payment, profile editing).

- URLs: Each app has its own URL configuration, included in the main project’s URLs.

- Static & Media Files: Handles static assets (CSS, JS) and media (images for rooms, packages, etc.).

## **Screenshot**

A screenshot of a website

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## **Feature enhancement**

To make Tripease more user-friendly, efficient, and trustworthy for travellers, the following feature enhancements are proposed and implemented:

1. Automated Payment Recording

* The system now automatically creates a Payment record for each booking.
* This ensures that the amount, payment mode, status, and date are always saved accurately.

3. Real-time Payment Status Tracking

* Users and admins can see the status of each payment (e.g., *Success*, *Pending*).
* Clear visibility builds trust and reduces confusion.

4. Better Data Consistency

* By linking TourBooking and Payment models directly, there’s no mismatch between booked services and paid amounts.
* This helps admins generate accurate reports and manage finances easily.

## **Conclusion**

Tripease makes travel booking easy and reliable by bringing holiday packages, hotel reservations, and secure payments together on one platform. With automated payment recording and clear booking details, it builds trust and saves users valuable time. Multiple payment options add flexibility, while instant notifications keep travelers informed about their bookings. This all-in-one approach simplifies trip planning and reduces hassle. Overall, Tripease provides a smooth, transparent experience for modern travelers. It is ready to grow and adapt to meet future travel needs.

<https://lakshmimunukutla.pythonanywhere.com/authentication/login/?next=/>