Project Overview: Travel Website "Bhraman"

1. **Introduction:**
   Bhraman is a sophisticated full stack web application designed to provide affordable and customizable travel packages. Leveraging modern web technologies, Bhraman simplifies travel planning by offering a diverse range of destinations, detailed itineraries, and flexible booking options tailored to user preferences.

2. **Project Structure:**
   Technologies Used:

   - **Frontend:** HTML, CSS, JavaScript, Bootstrap (for responsive design).
   - **Backend:** Java, Spring Boot framework (for REST APIs and MVC architecture).
   - **Database:** Spring Data JPA with MySQL (for storing package details, user data, and bookings).

   Different Pages:

   - **Home Page:** Highlights featured destinations and package summaries.
   - **Package Details:** Individual pages for each package, detailing itineraries, pricing, and booking options.
   - **User Dashboard:** Personalized area for managing bookings and account settings.
   - **Admin Dashboard:** Tools for administrators to add, update, and delete packages, oversee bookings, and manage site content.
   - **About Us:** Company background, mission statement, and core values.
   - **Terms and Conditions:** Legal framework governing website usage and bookings.
   - **Cancellation Policy:** Guidelines regarding cancellation procedures and refund policies.
   - **Contact Us:** Contact information and user inquiry form.

3. **Features and Functionality:**
   User Roles and Dashboards:

   - **User Roles:**
     - **Admin:** Responsibilities and access privileges.
     - **User:** Features available to regular users.

   Admin Dashboard:

   - **Key Functions:**
     - **Manage Packages:** CRUD operations for handling travel packages.
     - **Manage Users:** View, update, and add new user profiles.
     - **View Bookings:** Access and manage booking details, including the ability to initiate bookings on behalf of users.
     - **Content Management:** Update static content pages such as About Us, Cancellation Policy and Terms and Conditions.
     - **Analytics and Reports:** Generate reports on bookings and user activities for strategic insights.

   User Dashboard:

   - **Key Functions:**
     - **Browse Packages:** Explore available travel packages.

- **Search Packages:** Find specific packages based on customized criteria.
- **Customize Packages:** Modify package details according to personal preferences by submitting enquiries.
- **Book Packages:** Initiate booking processes and review booking history.

4. **Session Management:**

   - **User Authentication:** Mechanism for user login and secure authentication.
   - **Session Handling:** Management of user sessions throughout the website to ensure smooth navigation and personalized experiences.
   - **Security Measures:** Implementation of robust security protocols such as HTTPS and data encryption to safeguard user data and transactions.

5. **Cache Controls:**

- **Cache Control Headers**: The application includes cache control headers in the HTTP responses to prevent caching of sensitive information. This ensures that users always see the most up-to-date data and helps maintain security. The headers used include:
  - Cache-Control: "no-cache, no-store, must-revalidate"
  - Pragma: "no-cache"
  - Expires: 0

6. **Future Scopes:**

Email Notifications:

- Automated email notifications for booking confirmations, password resets, and user interactions to improve user engagement and communication.

Payment Gateway Integration:

- Integration of secure payment gateways to facilitate seamless and secure online transactions for booking payments.

Error Handling and Logging:

- Robust error handling mechanisms and logging strategies (using tools like Log4j) to monitor and troubleshoot application issues effectively.

Mobile Application:

- Developing a mobile application version of Bhraman to enhance accessibility and user experience on mobile devices.

User Reviews and Ratings:

- Implementing a system for users to leave reviews and ratings for travel packages, enhancing transparency and helping others make informed decisions.

Advanced Search Filters:

- Adding more advanced search filters (e.g., by budget, duration, activities) to help users find the most suitable packages.

Multi-Language Support:

- Incorporating support for multiple languages to cater to a broader audience.

AI-Powered Recommendations:

- Utilizing AI to provide personalized travel package recommendations based on user preferences and past behavior.

7. Maven Project Structure:

capstone-project/

```
│
├── src/
│   ├── main/
│   │   ├── java/
│   │   │   └── com/
│   │   │       └── capstone/
│   │   │           ├── MainApp.java
│   │   │           ├── config/
│   │   │           │   ├── AppConfig.java
│   │   │           │   └── SessionFilter.java
│   │   │           ├── controller/
│   │   │           │   ├── PackageController.java
│   │   │           │   ├── HomeController.java
│   │   │           │   ├── ItineraryController.java
│   │   │           │   └── UserController.java
│   │   │           │   └── BookingController.java
│   │   │           │   └── EnquiryController.java
│   │   │           ├── model/
│   │   │           │   ├── Booking.java
│   │   │           │   ├── Enquiry.java
│   │   │           │   ├── Package.java
│   │   │           │   └── User.java
│   │   │           ├── repository/
│   │   │           │   ├── BookingRepository.java
│   │   │           │   ├── EnquiryRepository.java
│   │   │           │   ├── PackageRepository.java
│   │   │           │   └── UserRepository.java
│   │   │           └── service/
│   │   │               ├── BookingService.java
│   │   │               ├── EnquiryService.java
│   │   │               ├── PackageService.java
│   │   │               └── UserService.java
│   │   ├── resources/
│   │   │   └── application.properties
│   │   └── webapp/
│   │       └── WEB-INF/
```

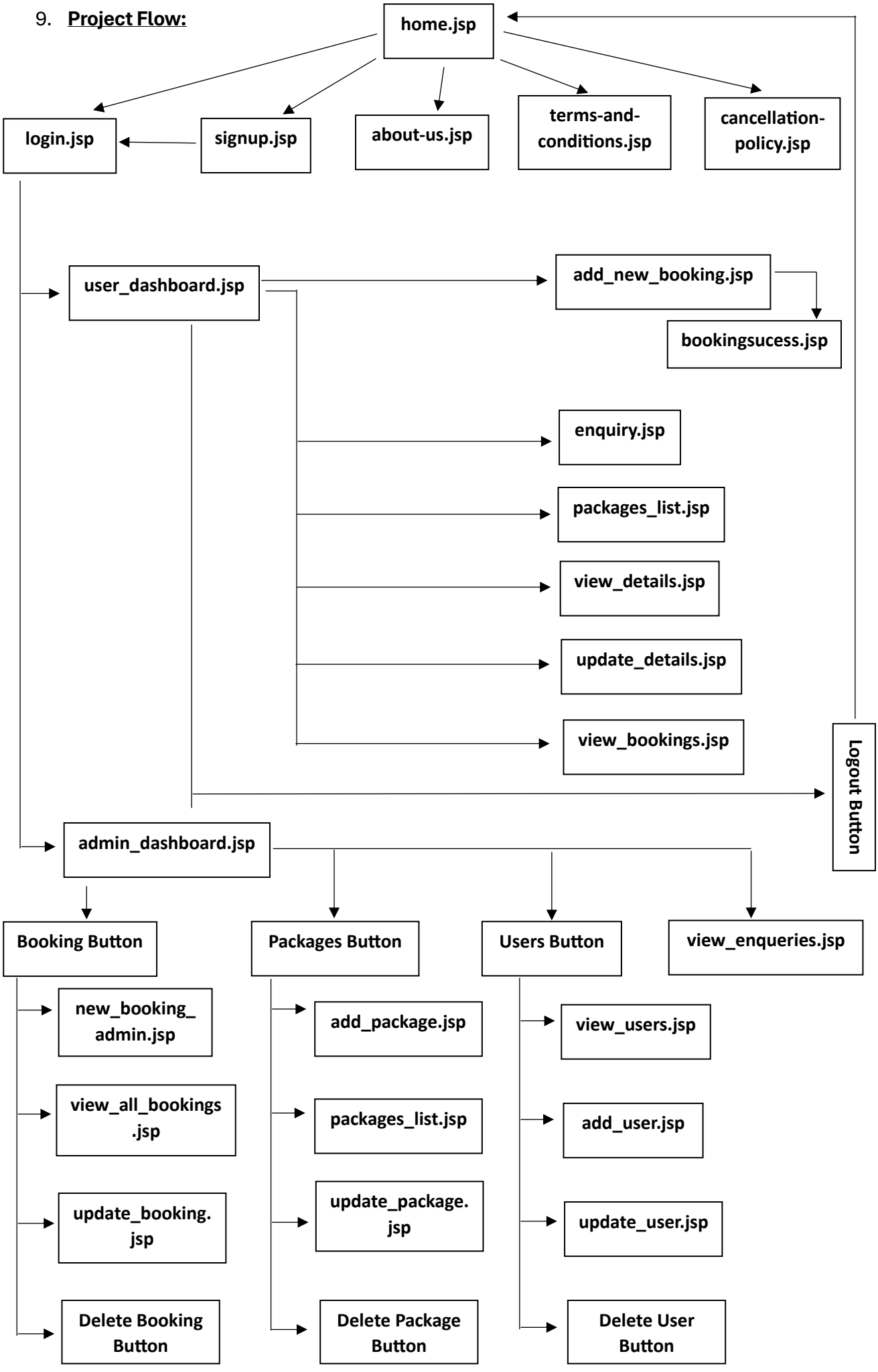
```
│   │       └── views/
│   │           ├── about-us.jsp
│   │           ├── add_new_package.jsp
│   │           ├── add_new_user.jsp
│   │           ├── add_new_booking.jsp
│   │           ├── admin_dashboard.jsp
│   │           ├── bookingsuccess.jsp
│   │           ├── bookpackage.jsp
│   │           ├──cancellation-policy.jsp
│   │           ├── darjeeling.jsp
│   │           ├──doars.jsp
│   │           ├──enquiry.jsp
│   │           ├──gangtok.jsp
│   │           ├── home.jsp
│   │           ├──kalimpong.jsp
│   │           ├──kurseong.jsp
│   │           ├── lava-lolegaon-rishap.jsp
│   │           ├──lepchajagat.jsp
│   │           ├── login.jsp
│   │           ├──new_booking_admin.jsp
│   │           ├──north-sikkim.jsp
│   │           ├──packages_list.jsp
│   │           ├──pelling-ravangla.jsp
│   │           ├──signup.jsp
│   │           ├──terms-and-conditions.jsp
│   │           ├──update_booking.jsp
│   │           ├──update_details.jsp
│   │           ├──update_package.jsp
│   │           ├──update_user.jsp
│   │           ├── user_dashboard.jsp
│   │           └── view_all_bookings.jsp
│   │           ├──view_all_users.jsp
│   │           ├──view_bookings.jsp
│   │           ├──view_details.jsp
│   │           └── view_enqueries.jsp
│   │
├── .gitignore
├── mvnw
├── mvnw.cmd
└── pom.xml
```

8. **Project Links:**

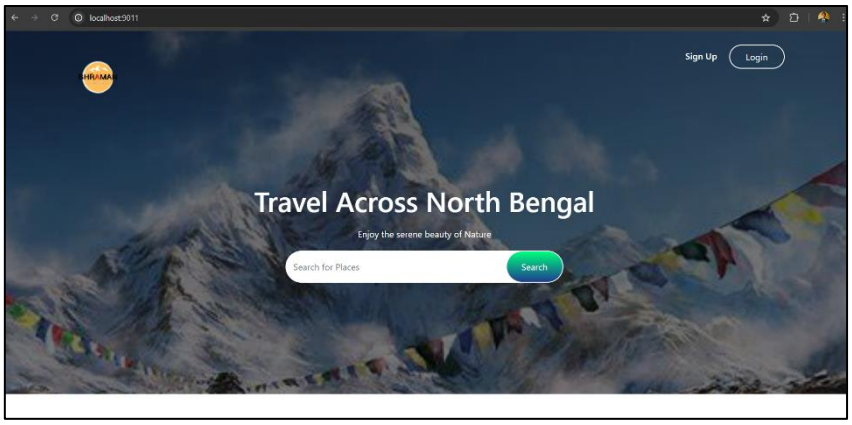
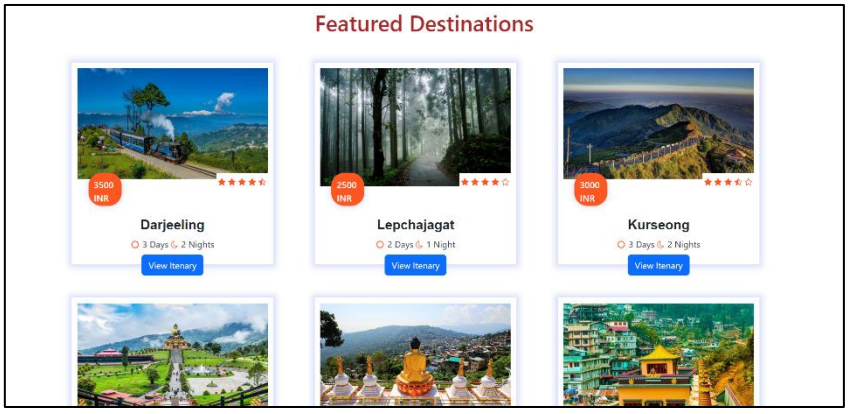
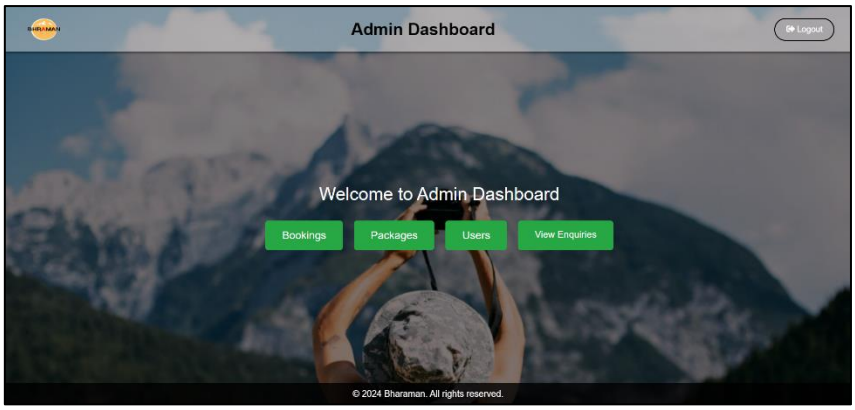
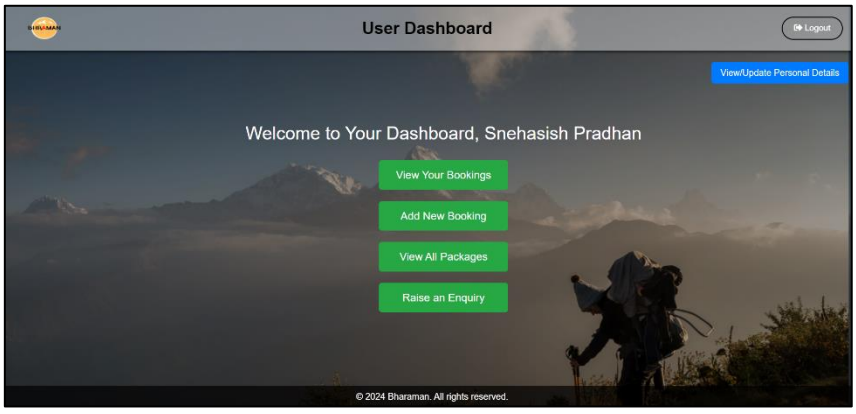
- **GitHub Repository**: The complete source code for the Bhraman project is available on https://github.com/pRaDhAn2001/TravelSpringProject.git.

- **Demo Video**: Watch a comprehensive demo of the Bhraman application in action on https://drive.google.com/file/d/1QR-xv7LCbXJEF0G6v-LQRUfO9RPdbFGI/view?usp=sharing.

9. **Project Flow:**



10. Conclusion:

Bhraman stands as a user-centric travel website offering flexibility, affordability, and convenience in trip planning. With its robust feature set and seamless user interface, Bhraman aims to redefine how travelers explore and book their next adventure.

Join Over 10k+ Happy Customers: Bhraman has proudly served over 10,000 satisfied customers. Explore Bhraman today and plan your next journey with confidence.