

Sri Lanka Institute of Information Technology



## **Tourist Management System**

### **Proposal Document** WD\_B01\_ITP\_G06

Information Technology Project – IT2080  
B.Sc. (Hons) in Information Technology

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# Introduction

## Client background

Travel Aspire is one of the famous tourist guidance companies in Sri Lanka. It is in the Colombo district and this company manages its works manually during this pandemic situation. However, this company provides good services to their clients. This company provides many services such as room services, food services, transport services, tourist guidance services, and event planning services.

Even though they have a well-prepared manual system during this technological world they could not maintain and manage every work properly. Therefore, the clients and the administration of the company face a lot of problems because of the manual system.

## Problems

- The company has been running on handwritten documents. The present systems are inadequate in providing information. customers are compelled to rely on local information sources and count on their own experiences regarding time and cost. Through phone calls, they must get information about restaurants, food, travel, flight, etc.
- Difficulties booking/ordering physically especially in these pandemic situations.
- Having a security threat. There was no good security to protect data.
- Difficulty managing monthly reports. Companies are unable to manage information and there are endless delays in taking decisions based on complete analysis. Annual reports and monthly reports are useful indicators for the owners to get ideas and improve their business. Doing this manually is quite tough, and mistakes are likely to occur.
- No better professional approach to the company.

## Proposed Solutions

- The application areas for the computerization will help minimizing the manual records kept at different locations, there will be more data integrity, desired information display very quickly by retrieving information from users and updating, deletion of such a huge amount of data will become easier.
- Our system facilitates you with the option of making all the payments through the internet for reservations and even when you are on the holiday, you don't have to carry much cash in your hand.
- Only the person or team in charge of the servers will have direct access to them. In the case of data loss due to human or software mistakes, data may be instantly retrieved from the cloud using cloud computing. Overall, the danger of unauthorized access is decreased, and implementing security measures is simplified because it is done centrally.
- Our system will create each employee profile and have details of them. And we store every required information such as hiring agent, hiring drivers, salary details of them etc. So, it's easier to manage and generate reports every month.
- If a traveler goes to the app, he will be able to acquire all of his plans in one spot. It includes selecting a place, reserving a hotel room at a low cost, hiring a cab for sightseeing, purchasing event tickets, and so on. He doesn't have to launch any additional apps for different activities.

## Benefits of the System

Any software development is a step forward in terms of technology. This system can improve the efficiency of all travelers and customers related to the travel management system. This “Travel Aspire” travel management system is extremely beneficial in assisting users in managing their daily operations.

- **User-Friendliness** – The clients, employees, new users, admins, and the owner can search for any details easily.
- **Reliability** – Users can put their trust in the system's services more easily.
- **Flexibility** – With an automated system, managing the processes of all kinds of management is simple and fast and provides greater flexibility.
- **Time-Saving** – Having an online system that is automated, can save more time than a manual system.
- **Efficiency** – The Travel Aspire system will be able to provide a better service for new users and clients with finger point distance.
- **Less Redundant** - All records and transactions will be effectively recorded, reducing the system’s redundancy.
- **Keeping Backups** – Keeping backups can be done easily with this online system.
- **Availability** - company can provide 24/7 services.
- **Safety** – The system can secure the data stored by granting access credentials to prevent unauthorized users from accessing it. Data can also be protected against unauthorized dangers.
- **User Satisfaction** – By providing efficient service through the system, it’s significantly enhanced the user’s convenience and the transparency of the functions in the system.
- **Reduce the cost** - When working with manual records, there is a huge need for manpower so additional costs and workspace can be reduced by using a system.

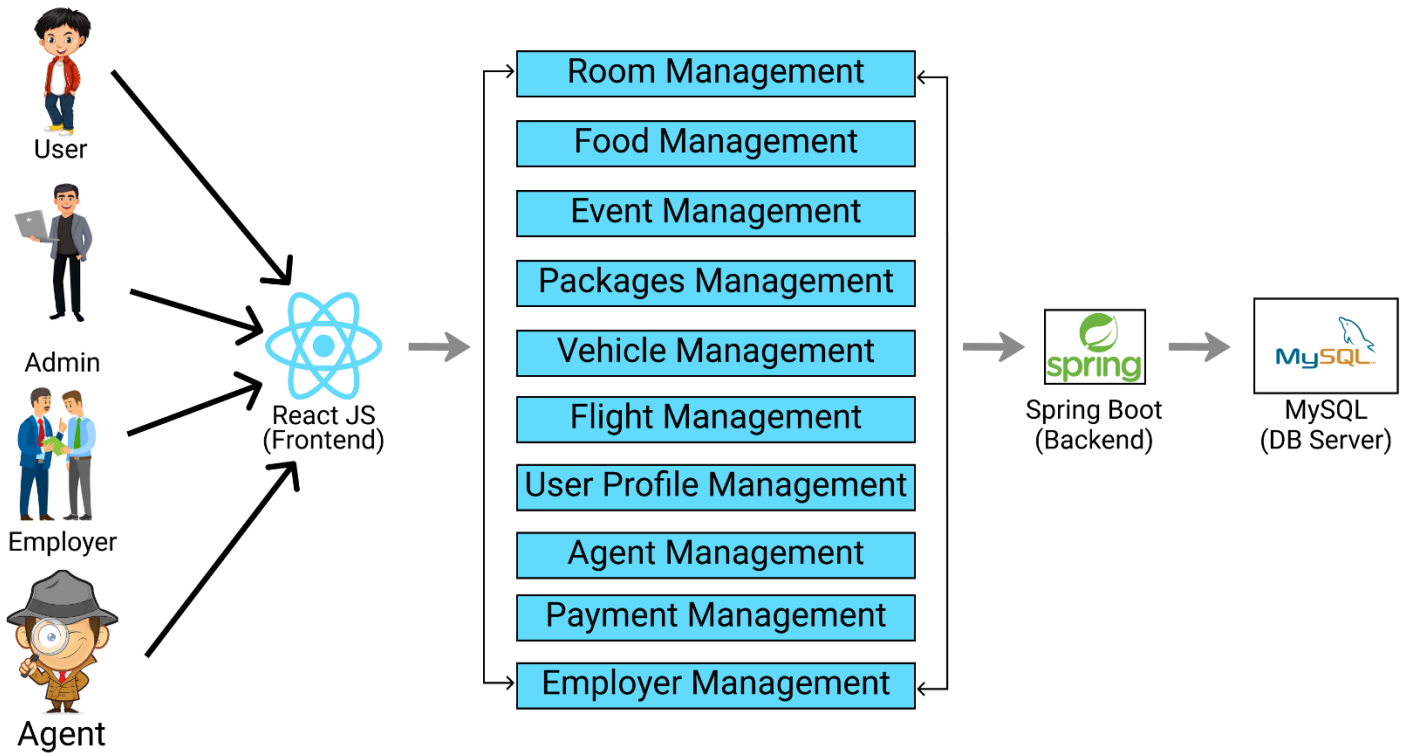
# System Overview

This system is a web-based system to manage all reservations. There are so many functions as managing reservations, payment management, rental services, etc.

There are so many benefits to this system. And with this system, customers can be informed about what are the places users can visit in Sri Lanka, how users can reach those locations, what are the accommodations, offers, and packages users have. On the agency, side administrator can manage the packages, User reservations, payments, and all the agency-related things using this site. This system has been divided into eight main functions. they are,

1. Package Management
2. User Profile Management
3. Payment Management
4. Room Management
5. Vehicle Rental Management
6. Food Management
7. Event Management
8. Agent Management

## System Overview Diagram



# Functions

## Package Management

All package information is posted on the package dashboard. The customer can find the package details and customize the packages. If customer wish to do additional features they can add. Only admin can add the packages and edit the price of the packages. We are providing different type of packages for an example historical trip, entertainment trip, educational trip, and couple packages also there.

**Add/update/delete package** – only admin can add the package to the system through form with validation and admin can modify and delete the packages.

**Modify package**- After customer modification customer can see the updated price and updated feature if they willing to pay, they can pay otherwise they can buy default package.

**Reserve package**- Customer need to use userID and password to login to the package reservation page and they need to fill the form with correct data. In here they can reserve the packages.

**Cancel Package** – Customer can cancel the reservation(delete) within 24 hours with valid reasons.

**Search Package** – customer can search the package using the search bar on the package page

**Reservation confirmation** – Whenever customer pays the reservation payment system will send a confirmation message via email.

**Report generated** – The admin can get the report of reserved package details using customerID and the admin generates a package history report. It is easy to analyze and make decisions.



## User Profile Management

Admin handles all the user's details and manages the registered users. The admin creates unique credentials for each user using their registration IDs, and also an admin can search for any user using UserID.

**User Login** – Users can log in to the system using provided credentials and if user forgot password user can reset the password using forgot password option.

**User profile** – Users have access to their profile, and they can update their details.

**User validation and Removal** – Admin has to validate the user before entering the system and has full authority to remove a user from the system in any case

**Monthly Reports** – Admin must generate a monthly report which must include purchased details of each user.

## Payment Management

In accordance with all reservations, customers must pay for the ordered and reserved items according to their unique reference ID, so that reference ID can be helpful for the administrator to confirm the payment process. Every payment has a unique reference ID to recognize properly which is customer has ordered or reserved.

**Enter Payment Detail** – Customer name, reference ID, date, total cost, phone number, email, and payment type (card or cash).

**Enter Card Type** – Debit or Credit, card holder name, expiry date and security pin.

**Payment Verification** – Customers can view the payment details and consequently approve or reject the payments. Once he/she finishes verifying the payment, he/she will confirm the pay for admin to continue the verification about finalized payment.

**Accessibility of Updating Payment** – When the admin rejects the customer payment, customer will get to know about it and customer can edit it.

**Delete Payment** – Admin could delete payment records, if it required.

**Payment Reminder** – Admin can send pending payment reminder details to customers via the email or via the phone message alert after the due date.

**Receipt/Slip Send** – When all is done admin will send an email and message about the payment details to the customer to satisfaction.

## Room Management

In the room management system, admin can add the hotel and room details to the system. All users including owner, employees and customers can view the details about rooms and hotels. Clients can choose their stay needs according to their preference, according to the province and district they prefer to stay. After they select the location, they can see the best places according to the ratings. When they are selecting the places to stay, they can see all details about that place and can customize their stay needs by their own. After selecting their stay, they must book and do the payment.

Finally, they will get a detailed bill with all details.

**Select a place (View)** – Users can see and check the places that they can stay.

**Reserve the place (Add)**– Users need to fill out the booking form and add their payment details.

**Can update user needs (Update)** – Users can update their stay needs within 24 hours after booking.

**Delete bookings (Delete)** – Users can delete their bookings one week after the book.

**Add hotel and room Details (Add)** – An Admin can add hotel and room details.

**Update/Delete Room Details (Update/Delete)**- Admin is the responsible person for updating and deleting the hotel and room details.

**Report Generation** – Once the reservation is completed. The system issues a detail bill with all reservation details.

## Vehicle Rental Management

The vehicle Rental system helps the user to rent a vehicle from one of the many available branches for a certain duration. When they reserve a vehicle also, they can book additional drivers and other accessories like baby seats, tents, binoculars etc. Customers can extend the rental period through the system but on that period if somebody else booked for that vehicle then customer can't extend the period.

Admin handles all the vehicles' details and manages the vehicles. Only the admin has the access to add new rental vehicles into the system. Admin can search for a particular vehicle and manage it through the admin panel.

**Searching available rental vehicle**-Registered users can search available vehicles by inserting pick-up location, pick-up date, and return date.

**Book a vehicle** - Users book a vehicle from available vehicles according to their needs. In System, all the details such as vehicle condition, with or without A/C, no. of seats, and price per day are shown.

**View and cancel bookings** - Users view bookings they have booked earlier, and they can cancel the bookings before 24 hours from pick-up time.

**Add New Vehicle** - Admin can add a vehicle by filling a form. In the form, it collects details of the vehicle such as vehicle number, model, condition, no. of seats, etc.

**Update and Delete vehicle status**-Admin can delete or update the details so that all details about the vehicles are up to date.

**Report generation**- Admin can generate reports so that they can analyze and make good decisions. The report shows the total bookings, most booked vehicles for a time limit which is either for past week or month.

**Other features**- Once the reservation is successful, the reference number will be sent by email to the user.

## Food Management

In this part the users can order foods from the site. On this site, the users can see hotels and restaurants by province. This allows users to keep track of information about the hotel or restaurant in the area they wish to visit. Here you can see the prices of the dishes at each hotel and the opinions and ratings of the hotel and pre-meal guests.

**Add** - Users can choose the food and drink of their choice and they can order.

**Update** -It is possible to change the food or drink ordered by the user or add more food and beverages

**Delete** - The user can remove the food and drink order ordered by the user

**Retrieve** - The user can view the food and drink he has ordered.

## Event management

All event information is posted on the event web page. Customers can find the details about events on the relevant page. Only admin can add event information including upcoming events from their respective dashboard. And if customers need to register for the event, they can register for the events they wish.

**Add Event-** When adding an event detail into the system. Admin must get all necessary details about the event. Admin enters those details and uploads them to the webpage. in the admin panel, the admin can see all customer details who are registered for the event.

**Event registration-** Using the registration form customers can register for events they wish.

**Add/edit/delete customer-** An admin has full authority to add, delete, edit, update relevant customers who registered for the event.

**Monthly report-**At the end of the month admin can generate the reports for the event registered list.

## Agent Management

Information on all type types of guides is posted on the webpage. Customers find details related to the guide on that page. Only the admin can add or remove the agent. If the customer wants to reserve the guide, user will have to fill out the form and pay the fee then receipt and other details will be sent to the customer via email.

**Add Guide** – When entering the data of a guide into the system, the admin should have all the information about the guide. Admin can variety details and publish on the website. In the admin panel, admin can view all the client information for those who have registered the agent.

**Guide Booking** - Customers can reserve guides using the booking form.

**Receipt-** When everything is finished, the administrator will send an email and a message to a customer with payment information.

**Update** – The Admin has full authority to update the registered Guide.

**Cancel Booking** – Customers can cancel their reservations at any moment without incurring any fees and can rebook from the beginning.

## Tools and Technologies

- Frontend – **React JS**
- Backend – **Java Spring Boot**
- Framework – **Figma**
- Database Server – **MySQL**
- Developing Tool (IDE) – **VS Code**
- Backend Testing – **Postman API**
- Version Control – **GitHub**

## Constraints/Limitation

- According to the system, users must register and after the registration login to the system then only user can book.
- If a customer wants to cancel the booking, he/she can do it before 24 hours.
- Customers can extend the usage period through the system but on that period if somebody else booked for that then he/she can't extend the period.
- Customer can edit pre-defined tourist packages with some limited features.

## Work distribution among members

Name	Student ID	Function	Sub Functions
<b>Gawsan R</b>	IT20051402	Package Management	Package Portal Package Dashboard Admin Dashboard Report Generation
<b>Asitha I.G.G.V.Y</b>	IT20256050	User Profile Management	User profile dashboard User reservation profile
<b>Cooray P S L T</b>	IT20638054	Payment Management	Payment Dashboard Payment portal Report generating
<b>Diyunugala S.A</b>	IT20662264	Room Management	Hotel/Room Detail Dashboard Room reservation portal Report Generation
<b>Prasanth P</b>	IT20667214	Vehicle Rental Management	Vehicle reservation dashboard Vehicle reservation portal Report Generation
<b>Deshan M.A.D</b>	IT20642532	Food Management	Food ordering Dashboard Food portal Report Generation
<b>Ahamed M.R.A</b>	IT20606206	Event Management	Event portal Admin Dashboard Report Generation
<b>Kaanushan S</b>	IT20616274	Agent Management	Travel portal Admin Dashboard Report Generation

## Gantt Chart

Task name	February				March				April				May			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Requirement Gathering</b>																
Meet the client																
Understand current process																
Requirement Analysis																
<b>Planning</b>																
Select suitable technologies																
Assign function to team																
Create project proposal																
<b>System Design</b>																
Interface design																
Database design																
<b>Implementation</b>																
Implement individual function																
Create a connection with DB																
Link connections with pages																
<b>Testing</b>																
Function testing																
Correct issues																
<b>Completion</b>																
Final project document																
Evaluation																