**Project Proposal**

**Level 2**

**IN 2900 – Industry Based Project**

**Tourist Guide Web and Mobile Application**

**Team Data Pirates**

**Faculty of Information Technology**

**University of Moratuwa**

**2021**

**Project Proposal**

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**IN 2900 – Industry Based Project**

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# **Introduction**

Nowadays, we can see many web applications that have been created for low budget tourists coming to Sri Lanka from abroad. The Tourist Guide Web Application is one such web application.

Tourists have faced some difficulties when finding places to visit, how to get transportation, how to choose applicable accommodation, how to order foods and what are the places they can visit in related areas. They have used various kinds of web applications to satisfy these requirements, but they cannot find one of the most suitable web applications to satisfy all these requirements. So, they need a single web application to fulfill their set of requirements.

We have proposed a responsive web application as the solution for the problem they mentioned, and it’s integrated with many features. For this software project we hope to,

* Develop a user management system
* Facilitate online hotels booking
* Facilitate a location management system
* Facilitate a vehicle management system
* Develop a user-friendly web application
* Develop a mobile app

# **Background & Motivation**

There are so many web applications we can see all over the world for guiding and providing facilities to tourists. Tourist Guide web application is one of the web applications for tourists who are visiting Sri Lanka.

Lots of Tourists when they travel to Sri Lanka face problems, how they manage their tour successfully. The Tourist Guide Web Application is the best solution for those tourists, and they can be provided all the facilities they want in this Web Application.

Tourism is one of the major paths of income for Sri Lanka. With such a website, tourists can complete their tour without any hassle. This will help tourists to build a better image of our country.

The Tourists Guide web application needs a proper way to manage users (Tourists). They need to register new users and so on.

# **Problem in Brief**

The Tourist Guide Web Application and Mobile Application needs a proper computerized system to guide tourists and manage their daily requirements.

* User Managing
* Online Booking
* Vehicle Booking
* Mobile App

# **Aim & Objectives**

## **Aim**

The aim is this project is a portal to fulfill the above requirements of the Tourist Guide Web Application and Mobile Application.

## **Objectives**

* Study of the problems of Tourist Guiding Systems.
* Study of technologies that can solve the problem.
* Design and develop a system for solving the problem.
* Evaluation of the proposed solution.
* Preparation of final documentation.

# **Proposed Solution**

Our solution for the above problem is to develop a responsive web portal for tourists who are visiting Sri Lanka.

* User management System for registering users.
* Select Locations from given specific locations.
* Online Hotel Booking System.
* Payment gateway for Paying hotels.
* Vehicle Management System.
* Mobile App for improving Usability.

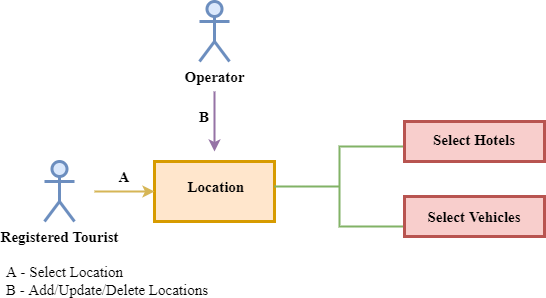
## **User management System for registering users**

Three types of users will be involved in the user management system. Those are unregistered tourists, operators and vehicle owners.

Unregistered tourists can register through the portal by providing their personal details. (Name, Country, Email, Password and contact details, etc.). All the registered users can change their password if needed.

## **Select Locations from given specific locations**

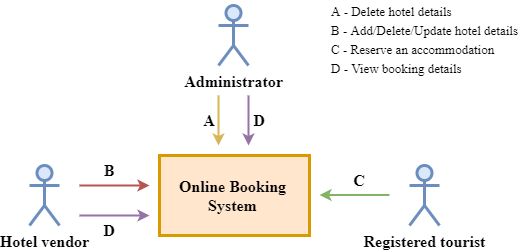
Most of the time tourists face difficulties about the places they have to visit in Sri Lanka. So, in this website tourists can select the best locations they can visit in Sri Lanka. After a tourist registers on this website, he/she can select from a given location. After a tourist selects the location they can see nearby hotels around the selected location. When tourists come to Sri Lanka our application shows the direction to reach the selected location using the google map API. Only administrators have the permission to add/Modify/Delete these locations.



*Figure 1 User interacts with system*

## **Online Hotel Booking System**

Registered tourists are facilitated to reserve an accommodation through this online booking system. Tourists can book any hotel or any other accommodation after by searching all the hotel details.Operators can add, update or delete details about hotel facilities.



*Figure 2 User interact with Online Booking System*

## **Payment gateway for Paying hotels**

Registered tourists are facilitated to reserve their accommodation. After the tourist booked his accommodation, he should make a payment. For doing this process we use a payment gateway.

Only Administrators have the permission to modify the payment process.

## **Vehicle Management System for selecting location.**

When a registered tourist selects the location after it shows a hotel list, After that, tourists can also select their vehicle. In our app vehicles are shown and tourists can book a vehicle when it is available on their booking date.

## **Mobile App for improving Usability**

Nowadays, most of the people in the world use mobile phones rather than another technical component. Because of that we decided to create a mobile app including all of the above features. The facilities tourists can get in the web application, can get from this mobile app.

# **Resource Requirements**

* MySQL Database
* Internet Connection
* React
* Rest API
* React native Mobile Development
* Spring boot Backend Framework
* Payment Gateway

# **Reference**

[1]"Trip Advisor", *Trip Advisor*, 2021. [Online]. Available: https://www.tripadvisor.com. [Accessed: 20-Oct- 2021].

[2]"Booking.com: The largest selection of hotels, homes, and vacation rentals", *Booking.com*, 2021. [Online]. Available: https://www.booking.com. [Accessed: 20- Oct- 2021].

[3] T. Christie, "Home - Django REST framework", *Django-rest-framework.org*, 2021. [Online]. Available: https://www.django-rest-framework.org/. [Accessed: 22- Oct- 2021].

[4] *Youtube.com*, 2021. [Online]. Available: https://www.youtube.com. [Accessed: 22- Oct- 2021].

# **Appendix**

## **Appendix 01: Plan of Action**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Action** | **October** | | | |
| **1** | **2** | **3** | **4** |
| **1** | Requirement gathering |  |  |  |  |
| **2** | Submit proposal and get approval |  |  |  |  |
| **3** | Design structural diagrams |  |  |  |  |
| **4** | Design behavioral diagrams |  |  |  |  |
| **5** | Design database |  |  |  |  |
| **6** | Develop the web portal |  |  |  |  |
| **7** | Complete non-functional requirements |  |  |  |  |
| **8** | Quality assurance |  |  |  |  |
| **9** | Hosting |  |  |  |  |
| **10** | Final report submission |  |  |  |  |

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|  | **November** | | | | **December** | | | | **January** | | | | **February** | | | | **March** | | | |
| **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** |
| **1** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **10** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |