Software Engineering Laboratory

Project Proposal Report

TourPlanner BD - Comprehensive Tourist Guide and Booking Platform

Team Travel-Tribe

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1 Introduction

In today's fast-paced world, travelling has become increasingly important for the young generation. It allows to gain lifelong experiences. Keeping that matter in mind we are proposing the system - TourPlannerBD, which is a tourist guide and booking platform, dedicated to providing a complete and hassle-free tour experience. With features such as weather forecasting, package booking, bus ticketing, hotel reservation, online blog, free books, tourist guide,different discount schemes and a responsive helpdesk, all in one platform to minimize any inconveniences for travelers. Our dynamic platform expands regionally and globally, serving as a one-stop solution for tour planning, hotel and bus bookings, and online advertising. By offering comprehensive guidance and innovative features, TourPlanner BD aims to revolutionize the way tourists plan and enjoy their journeys.

1.1 Purpose

The main purpose of TourPlannerBD is to assist tourists in planning and enjoying their trips without unnecessary hassle and nuisance. As beginner tour planners, we often had to face various challenges that may lead in undesirable experiences during the travelling. To offer solution for all tour related problems, our system will provide a complete

guideline for tourists, starting from the initial planning phase all the way to the end of the tour so that no sudden mishaps can happen.

1.2 Objective

Our primary objectives are-

- Simplifying the process of planning a tour by offering a centralized platform where users can access all the necessary information and services required for their trip.

- By implementing this we will be able to minimize external hassles,challenges and confusions that tourists often encounter during their trips.

- By providing real time weather forecasting and timely updates on destinations will be provided to help users plan effectively and make informed decisions based on current conditions.

- Our online blog and collection of free books will provide valuable insights, travel tips, and cultural information for our users.

- The online helpdesk and chat system will be available to assist users with any inquiries, providing prompt and reliable customer support.

1.3 Motivation

The motivation behind our system TourPlanner BD is from the need to address the challenges faced by tourists and ourselves during any trips. As planning a tour can be overwhelming, with multiple aspects to consider and numerous uncertainties and often we had to depend on social media groups or some shady website which rarely provides authentic information.By providing this system that integrates essential services and information we will be creating a user-friendly, dynamic, and reliable platform that becomes a singular solution for tourists.

2 Features

Our key features are-

- Travel Package

- Tour Guide

- Weather Forecasting

- Bus Ticket

- Hotel Ticket

- Providing Books

- Help-desk

- Online blog

- Discount based on package

2.1 Description of Features

The detailed description of features are give below-

- **Travel Package:** Our platform will offer a wide range of travel packages, according to different budget and preferences. These packages will contain various destinations, activities, and accommodations, providing travelers with convenient and easy options.

- **Tour Guide:**To enhance the travel experience, we will provide knowledgeable and experienced tour guides who will offer valuable insights, historical context, and local expertise. They will also help with any type of queries and try to solve any problems of the tourists.

- **Weather Forecasting:** With real-time weather forecasting, our platform will keep travelers informed about the climatic conditions of their destinations. This feature enables them to plan their activities accordingly to plan a smooth trip.

- **Bus Ticket:** Travellers will be able to book their destination's bus ticket through it easily.

- **Hotel Ticket:** Through our platform, travelers will be able to effortlessly book hotel accommodations at their desired destinations.

- **Providing Books:**We will provide a collection of books that cover a wide range of genres, including travel guides, local literature, and cultural insights for the travellers.

- **Help Desk:** There will be online helpdesk to a assist travelers with any queries, concerns, or issues they may encounter during their journey.

- **Online Blog:**There will be online blog section which will offer travel-related information, including destination guides, travel tips, suggestions, and personal travel stories.

- **Discount Based on Package:**To reward our valued customers, we offer attractive discounts based on the selected travel package. For example, if an user previously claims our three package, on the fourth package they will get 25% discount.

3 SWOT Analysis

While TourPlannerBD has the potential to make a significant impact in the tarvelling world, it's important to conduct a thorough analysis of its strengths, weaknesses, opportunities, and threats. By examining these factors, we can identify potential areas for growth and improvement, as well as potential risks that may impact the platform's success. Let's take a closer look at the SWOT analysis -

- **Strength:** TourPlannerBD provides a wide range of services for the users,it is user-friendly,has unique feature list.In Bangladesh tourist based application is rare, so there is a big chance to become successful with TourPlannerBD.

- **Weakness:** Tour recommendation based on users interest is absent here.

- **Opportunities:** Almost no similar application in BD. Our targeted users are mainly in the age range of (22-30) years,these generations are now used to with online services.But it is available for all age range of people and the best user interface attracts the tourists more.

- **Threats:** Some world wide, well established companies are providing kind of similar feature, so it can be a big threat for this system.

- **Strategy:** All the similar applications have some major limitations where we are working, for example we are providing weather info, blog posts to know the actual situation of a place. So it can be a good system for our targeted users.

4 Benchmark Analysis

TourPlannerBD is a digital platform.A benchmark analysis is conducted to compare against similar platforms in the industry. Here are some potential benchmarks for TourPlannerBD to consider:

Applications / Features	ShareTrip	Booking.com	Gozayaan	Tour Planner
Tour suggestion	Yes	Yes	Yes	Yes
Weather Forecasting	No	No	No	Yes
Bus ticket	Yes	Yes	Yes	Yes
Hotel ticket	Yes	Yes	Yes	Yes
Providing Books	No	No	No	Yes
Chatbot	No	No	No	Yes
Blog	Yes	No	No	Yes

Figure 1: TourPlannerBd Benchmark Analysis

5 Diagrams

Proposed systems Use Case diagram, State diagram, Sequence diagram, Data-flow diagram are given in this section.
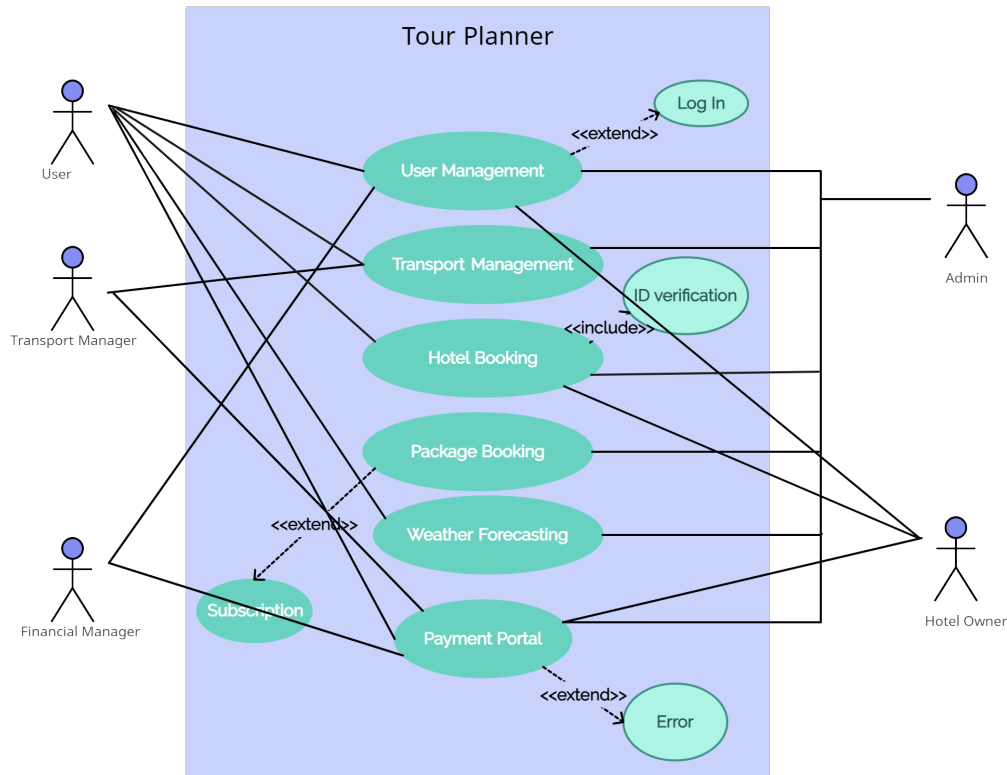
5.1 Use Case Diagram:

Figure 2: TourPlannerBd Use Case Diagram

Figure-2 contains use case diagram description for the TourPlannerBD -
User Management:

- Primary Actor: Admin

- Description: The admin manages user accounts,transport management,hotel booking,package , weather forecasting,payment portal, including registration, login, and account settings. This use case involves actions and managing user roles and permissions.

Transport Management:

- Primary Actor: Transport Manager

- Description: The transport manager handles the management of transportation services and payment portal. This includes actions such as adding or updating available bus routes, managing bus schedules, and ensuring the availability and accuracy of transport-related information.

Hotel Booking:

- Primary Actor: User

- Secondary Actor: Hotel Owner

- Description: Users can search for available hotels and make bookings, while hotel owners can manage their hotel listings and handle reservations. This use case involves actions such as searching for hotels, viewing hotel details and availability, making hotel bookings, and managing hotel listings and reservations.

Package Booking:

- Primary Actor: User

- Description: Users can search for and book complete tour packages. This use case includes actions such as browsing available packages, selecting desired packages, providing package preferences, and making package bookings.

Weather Forecasting:

- Primary Actor: User

- Description: Users can access weather forecasting information for their desired travel destinations. This use case involves actions such as selecting a location, retrieving current and future weather conditions, and displaying relevant weather forecasts to the user.

Payment Portal:

- Primary Actor: User

- Secondary Actor: Financial Manager

- Description: Users can make payments for their bookings through the Tour Planner system, and the financial manager oversees the payment processes and transactions. This use case includes actions such as selecting a payment method, entering payment details, processing payments securely, and managing payment-related tasks.
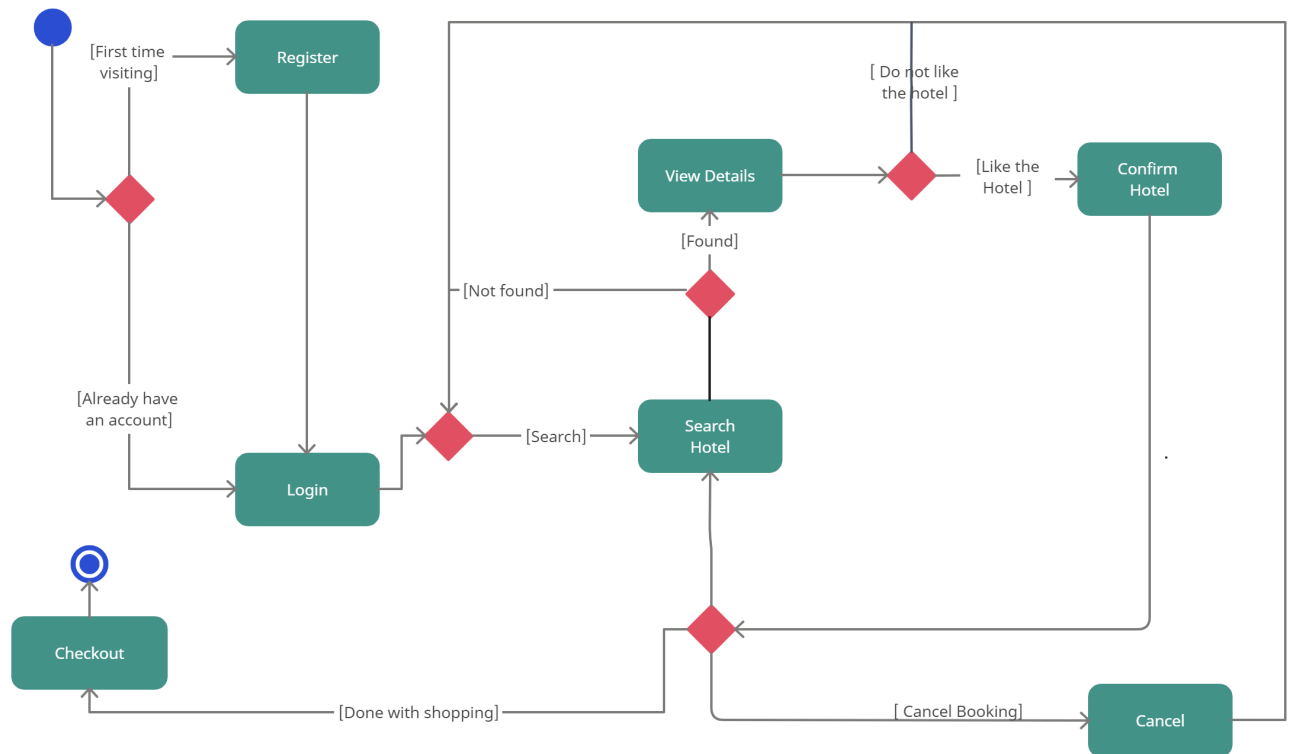
5.2 State Diagram:

Figure 3: TourPlannerBd State Diagram

This diagram -3 explains the states of booking a bus ticket through our website, an user
can search hotel based on place, if the user finds the hotel and choose any of them the
user can view the details of the hotel, if he/she makes decision to book then the user will
redirect to checkout state. Any time the user can cancel the booking before checkout.If
the user is new then he/she needs to create an account but for old users there needs no
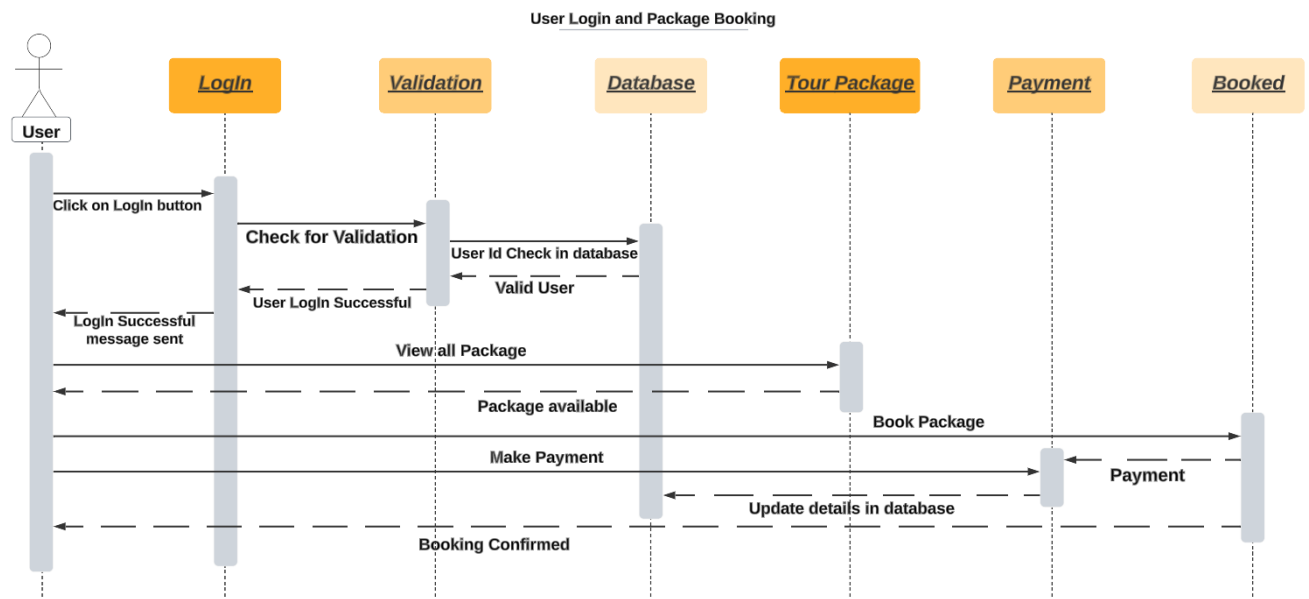new account.

5.3 Sequence Diagram:

Figure 4: TourPlannerBd Sequence Diagram

Figure-4 represents sequence diagram for the TourPlannerBD -The user initiates a login request to access their account. The system automatically performs validation by checking the provided login information against the database. If the information matches, the database returns a message confirming the validity of the user, allowing them to proceed with the login process. Automatically the user will gain access to all the features of the system, including tour packages. When the user requests to view tour packages, the system checks the availability of the desired package.If the user request to buy the package and if the package is available, the system presents a payment option to the user. After selecting the payment option, the user proceeds to make the payment.After the user completes the payment, the system updates the payment information in the database. Simultaneously, the system generates a booking confirmation, which includes the details of the booked package. This booking information is then returned to the user, completing the sequence of events.
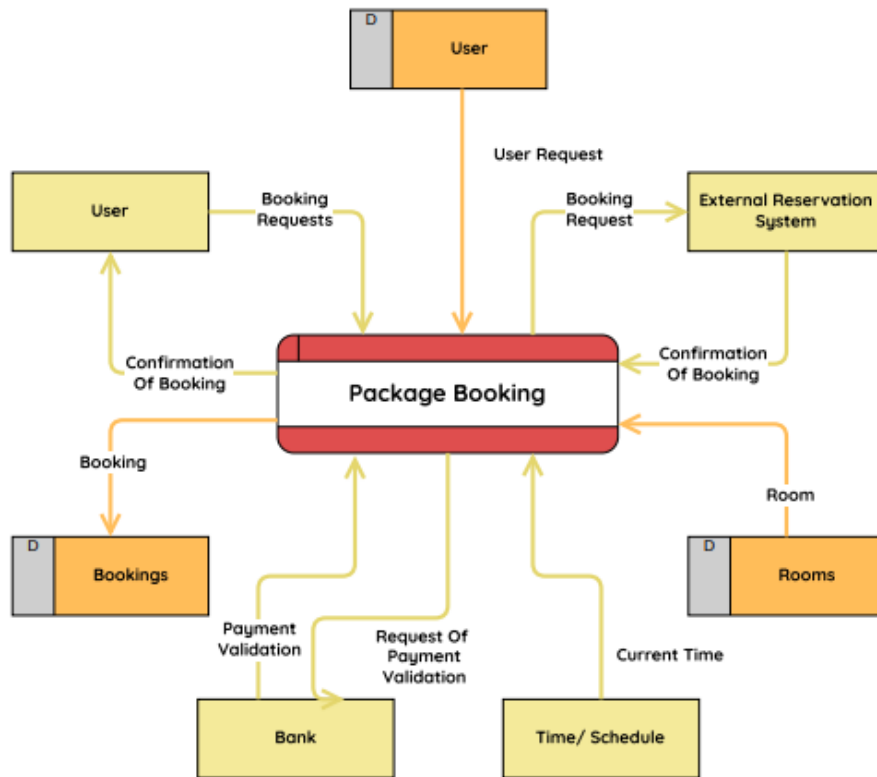
5.4 Data-flow Diagram:

Figure 5: TourPlannerBd Data-flow Diagram

Figure-5 contains Data-flow diagram description for the TourPlannerBD -

After the user logs into the system, they can view available packages by sending a request. If the package is available, the system will enter a loop to confirm the booking. Once the booking request is confirmed, it will proceed to payment validation, where the system will verify the payment through the user's bank. If the payment validation is successful, the booking will be marked as done, and the booking data will be stored. However, if the user does not find the package available for booking, the system will enter a separate loop to connect with an external reservation system for package booking. Each package will have pre-stored room information, and the scheduling of activities within the package will be fixed.

6 Product Backlog

This is the initial product backlog, it may change as our project goes on in the future-

Feature	Sprint	Responsible
Weather Forecasting	1	Rupok
Travel Package	1	Rupok
Hotel Booking	1	Rupok
Frontend Beautification	2	Bipul & Anannaya
Help Desk	2	Fahad & Mithila
Blog	2	Rupok & Bipul
Bus Ticket	3	Rupok, Bipul & Anannaya
Free Books	3	Rupok, Fahad & Mithila
Frontend Beautification	3	Bipul, Anannaya, Fahad & Mithila

Figure 6: TourPlannerBd Product Backlog

7 Language and Tools

Language:
HTML, CSS, JavaScript
Framework:
Bootstrap, Tailwind CSS, Django
API:
Weather API, Latitude and longitude API, Google Book API

8 Conculsion

To sum up, TourPlannerBD is an innovative solution for tour planning, by minimizing the challenges faced by travelers and providing them the best experience. By integrating some major features, we hope to offer the best services to the tourists. Through Tour-Planner BD, we endeavor to revolutionize the way individuals plan and embark on their journeys, empowering them to explore the world with confidence and convenience.