

TRAVEL PLANNER SYSTEM

Course Code/Course Title: Object Oriented analysis and design

Group Number: 9

Project Topic: Travel planner system

Link to GitHub Repository: <https://github.com/BFavour/travelplanner->:

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GROUP INFORMATION

MEMBER NAME	REGISTRATION NUMBER	TEAM ROLE	PERCENTAGE PARTICIPATION
Tah Bunikih Favour Yeuwohnyi	ICTU20233781	BACK END	25%
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CHAPTER ONE: INTRODUCTION

1.1 General Introduction

The Travel Planner System is a web-based application that enables users to search for hotels within their budget, view them on a Google map, register and log into the system, and book cab services. The application leverages modern web technologies such as HTML, CSS, and PHP to deliver a seamless and user-friendly experience.

1.2 Aim and Objectives

- To allow users to search and filter hotels based on their budget.
- To implement a user registration and authentication system.
- To integrate Google Maps API for location visualization.
- To enable cab booking functionalities within the system.
- To ensure a responsive and accessible user interface using HTML and CSS.

1.3 Problem Statement

Planning travel, especially when budget and transportation are constraints, can be time-consuming and challenging. The absence of a unified platform to search hotels, view them geographically, and book cabs creates inconvenience. This project aims to resolve these issues by building an integrated and budget-conscious travel planning system.

CHAPTER TWO: LITERATURE REVIEW

2.1 Software Development Methodologies

Various methodologies exist in software development, such as Waterfall, Agile, Scrum, and DevOps. Each has its strengths and weaknesses depending on the project type and requirements. For web applications, Agile-based approaches are commonly preferred

We used agile because:

2.2 Comparison Between Different Methodologies

- Waterfall: Linear and sequential, suitable for well-defined requirements.
- Agile: Iterative, flexible, and encourages stakeholder feedback.
- Scrum: A subset of Agile with structured sprints and roles.
- DevOps: Focuses on collaboration between development and operations.

2.3 Reason for Choosing Scrum Methodology

- **Adaptability:** Scrum's short, iterative cycles (sprints) allow teams to quickly adjust to new information, changing priorities, and unforeseen challenges, preventing rigid adherence to outdated plans.
- **Fast Delivery Cycles:** By delivering potentially shippable product increments at the end of each short sprint, Scrum ensures frequent value delivery, enables earlier feedback, and accelerates time-to-market.
- **Ability to Accommodate Changing User Requirements:** Scrum thrives on change; the Product Backlog is continuously refined and reprioritized, ensuring the team always works on the most current and valuable features based on evolving user needs.
- **Promotes Collaboration:** Scrum fosters a highly collaborative environment through cross-functional teams, shared goals, and daily synchronization, encouraging mutual support and collective problem-solving.
- **Regular Communication Within the Team:** Built-in events like daily stand-ups, sprint reviews, and retrospectives, along with the iterative nature of work, ensure consistent and transparent communication, keeping everyone aligned and informed.

2.4 General Review of Related Concepts

Similar travel planning systems have integrated map APIs, booking engines, and user management systems. This project builds upon these concepts using modern PHP and frontend technologies.

CHAPTER THREE: METHODOLOGY AND MATERIALS

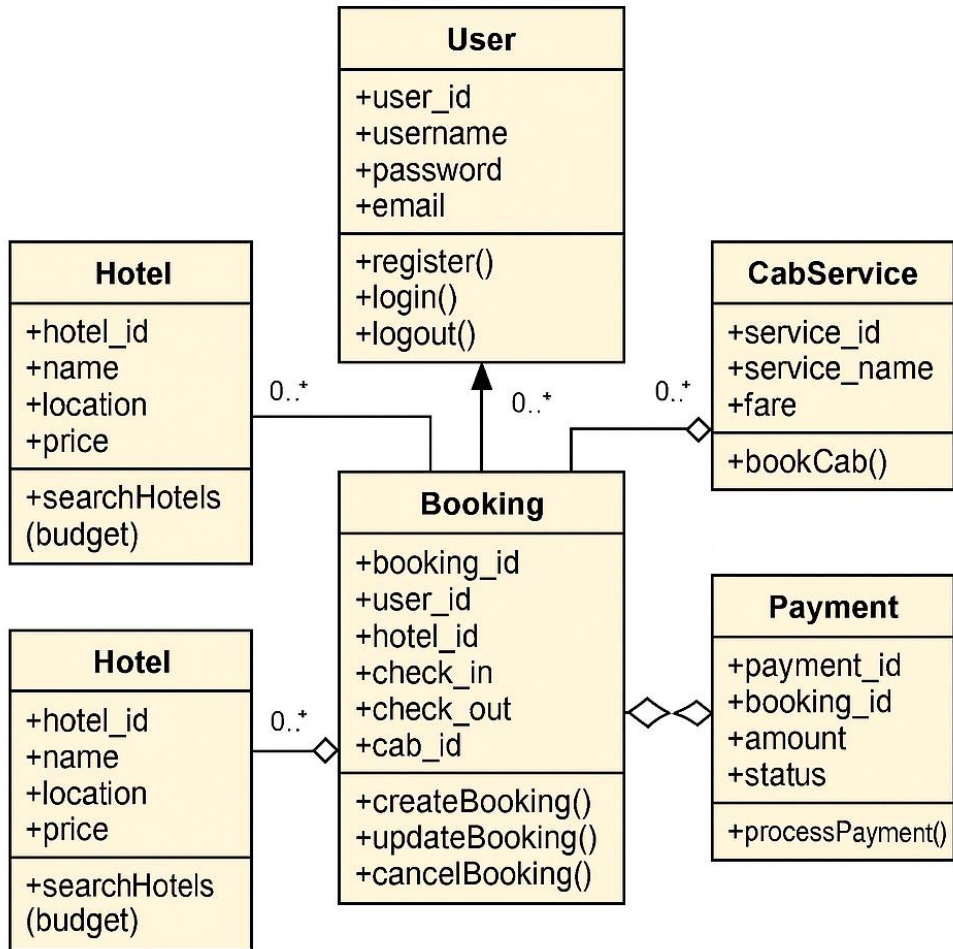
3.1 Research Methodology

The project adopted an exploratory and iterative approach using Scrum methodology.

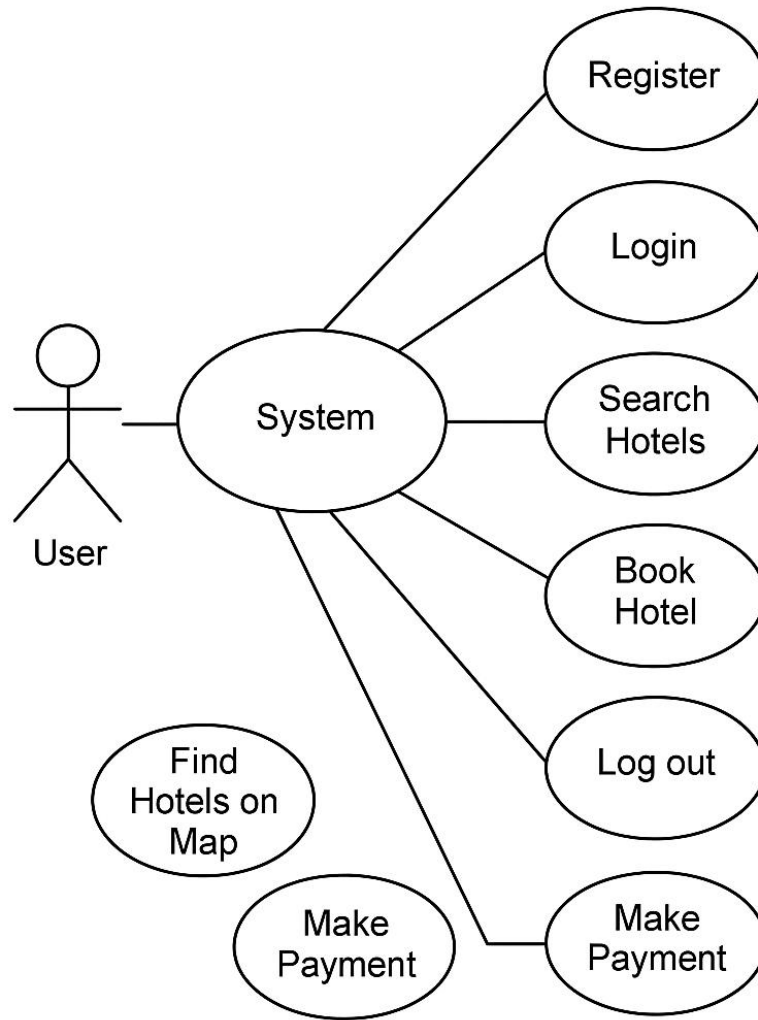
3.2 System Requirements

- Functional: Hotel search, user registration/login, Google Map integration, cab booking.
- Non-functional: Usability, performance, scalability, maintainability.

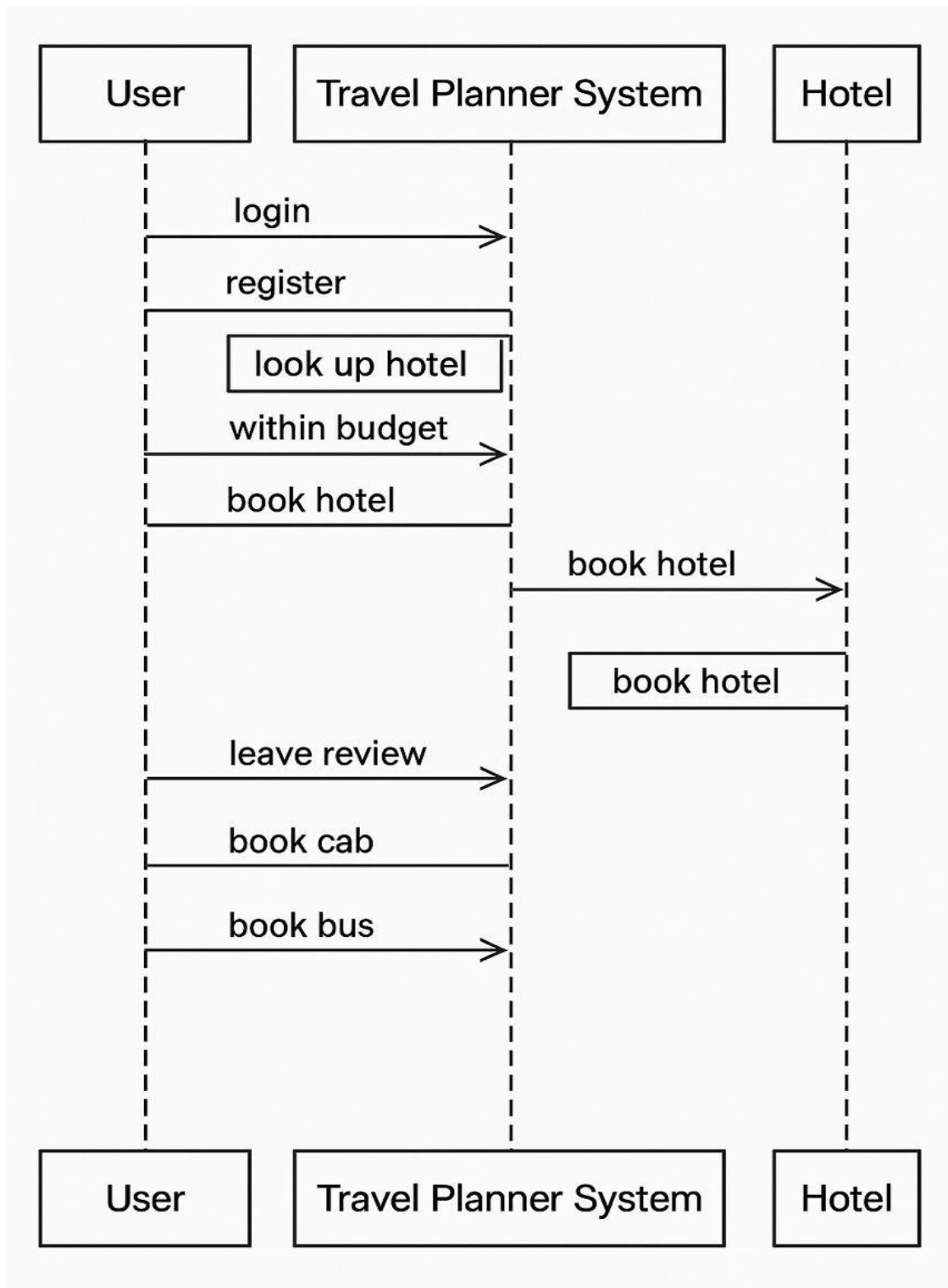
3.3 System Design



UML Class Diagram



Use Case Diagram:



Sequence diagram

3.4 Application of Scrum

- Team Organization: Divided into frontend, backend, and integration teams.
- Workflow Management: Weekly sprints with stand-up meetings.
- Conflict Resolution: Regular feedback and pair programming.
- Challenges and Solutions: Internet issues were solved by working offline and syncing later.

3.5 Scrum Artifacts

- Product Backlog: Hotel listing, Map API integration, Cab booking.
- Sprint Backlog: Each sprint focused on implementing and testing a module.

3.7 Proposed Algorithms

Simple filter algorithms were used to search hotels within budget.

3.8 Materials and Technologies Used

- HTML: Structure of web pages
- CSS: Styling and responsiveness
- PHP: Server-side logic and database connectivity
- Google Maps API: Location services and map visualization

CHAPTER FOUR: RESULTS AND DISCUSSIONS

Below are the screenshots of various application scenarios:

The image displays three mobile application screens, each with a white background and rounded corners, set against a light gray background.

Screen 1: Find Hotels Based on Your Budget (XAF)

- Title: *Find Hotels Based on Your Budget (XAF)*
- Input field: Your Budget in XAF
- Input field: Start Date (mm/dd/yyyy) with a calendar icon
- Input field: End Date (mm/dd/yyyy) with a calendar icon
- Button: Find Hotels

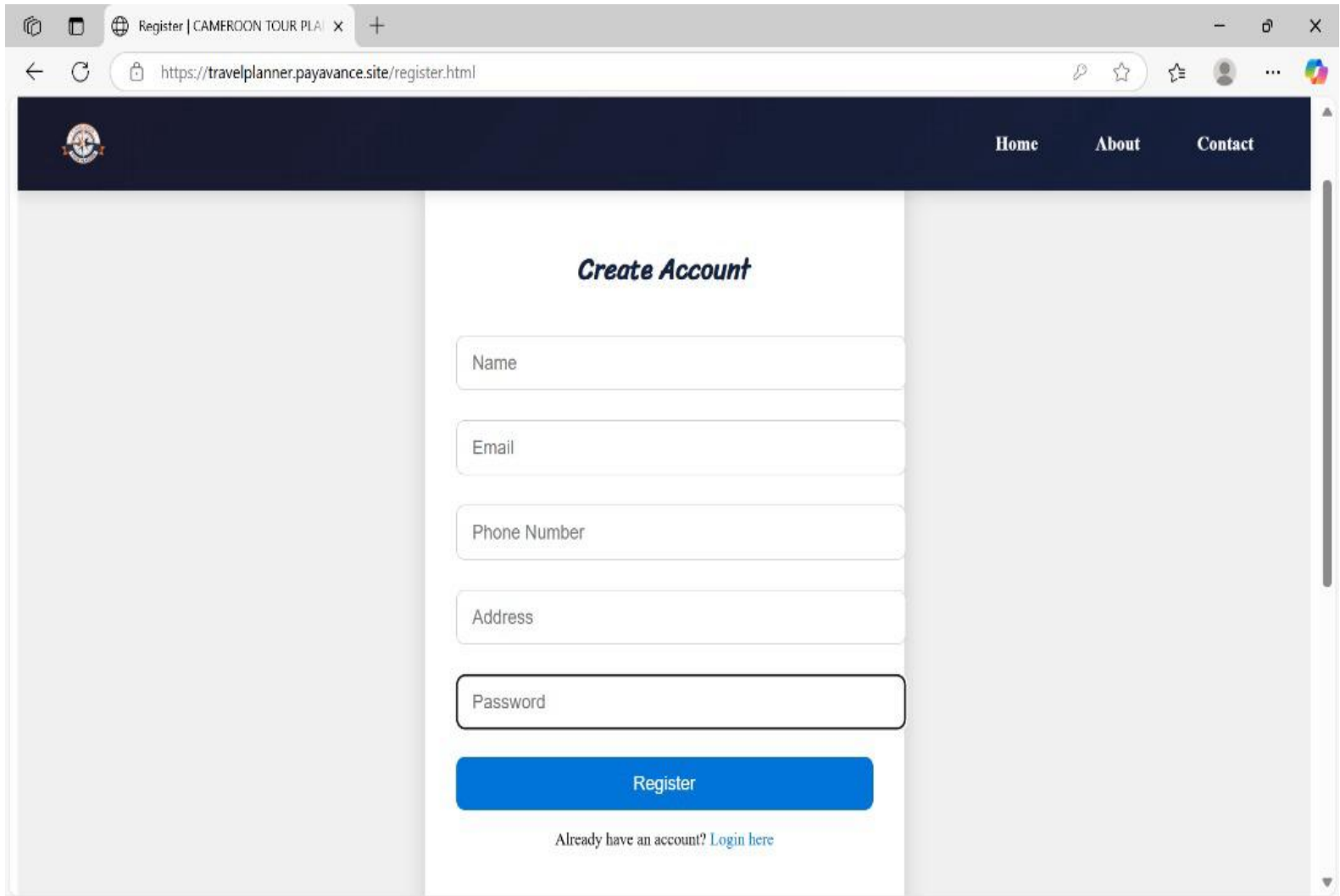
Screen 2: Book In-Town Circulation

- Title: *Book In-Town Circulation*
- Input field: Current Location
- Input field: Destination
- Input field: --:-- -- with a clock icon
- Input field: Your Email
- Button: Book Now

Screen 3: Travel Across Cameroon

- Title: *Travel Across Cameroon*
- Input field: Current Region
- Input field: Destination Region
- Input field: Your Email
- Button: Book Region Travel

Screenshots: Registration Page

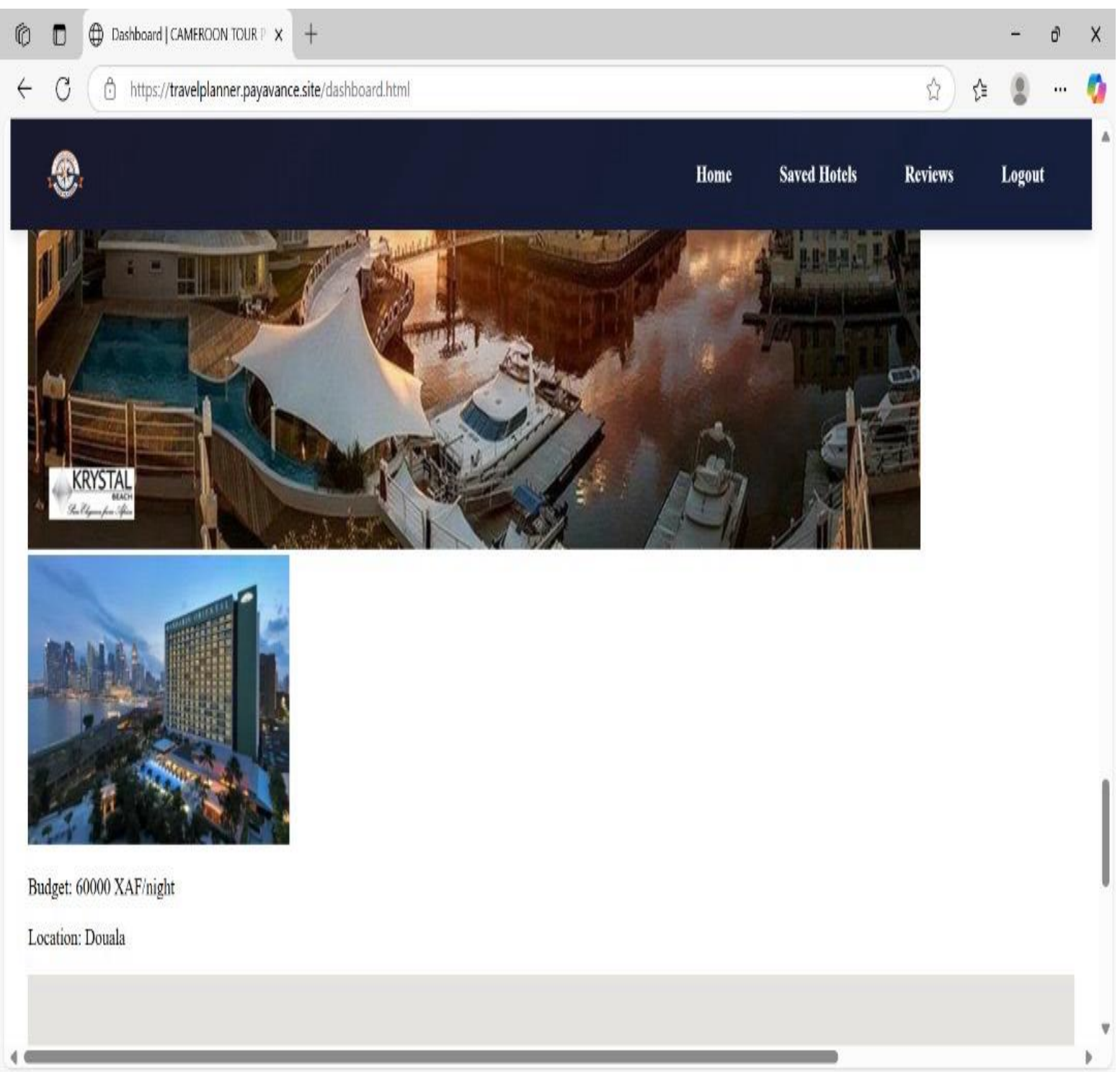


The screenshot shows a web browser window with the URL <https://travelplanner.payavance.site/register.html>. The page features a dark blue header with a logo on the left and navigation links for [Home](#), [About](#), and [Contact](#) on the right. The main content area is titled "Create Account" and contains a registration form with the following fields:

- Name
- Email
- Phone Number
- Address
- Password

Below the form is a blue "Register" button. At the bottom of the form, there is a link: "Already have an account? [Login here](#)".

Screenshot forHotel Search



Screenshots: Google Maps View

Dashboard | CAMEROON TOUR P x


https://travelplanner.payavance.site/dashboard.html

Home Saved Hotels Reviews Logout

Budget: 40000 XAF/night

Location: Yaoundé

Map Satellite



Google


Book Now

Leave a review...

Submit Review

Douala Marina Bay

Screenshots for API Request/Response samples

Request URL	https://maps.googleapis.com/maps/api/js?key=AlzaSyCeXX4jRDTdQliRUuposhRDaFF553A0F8A
Request Method	GET
Status Code	 200 OK (from memory cache)
Remote Address	142.251.36.42:443
Referrer Policy	strict-origin-when-cross-origin
Alt-Svc	h3=":443"; ma=2592000,h3-29=":443"; ma=2592000
Cache-Control	public, max-age=1800, stale-while-revalidate=12600
Content-Encoding	gzip
Content-Length	87677
Content-Type	text/javascript; charset=UTF-8
Cross-Origin-Resource-Policy	cross-origin
Date	Wed, 25 Jun 2025 09:35:46 GMT
Etag	66c5c9b2
Server	scaffolding on HTTPServer2
Timing-Allow-Origin	*

Screenshots to leave a review

Hotel Reviews

https://travelplanner.payavance.site/reviews.html

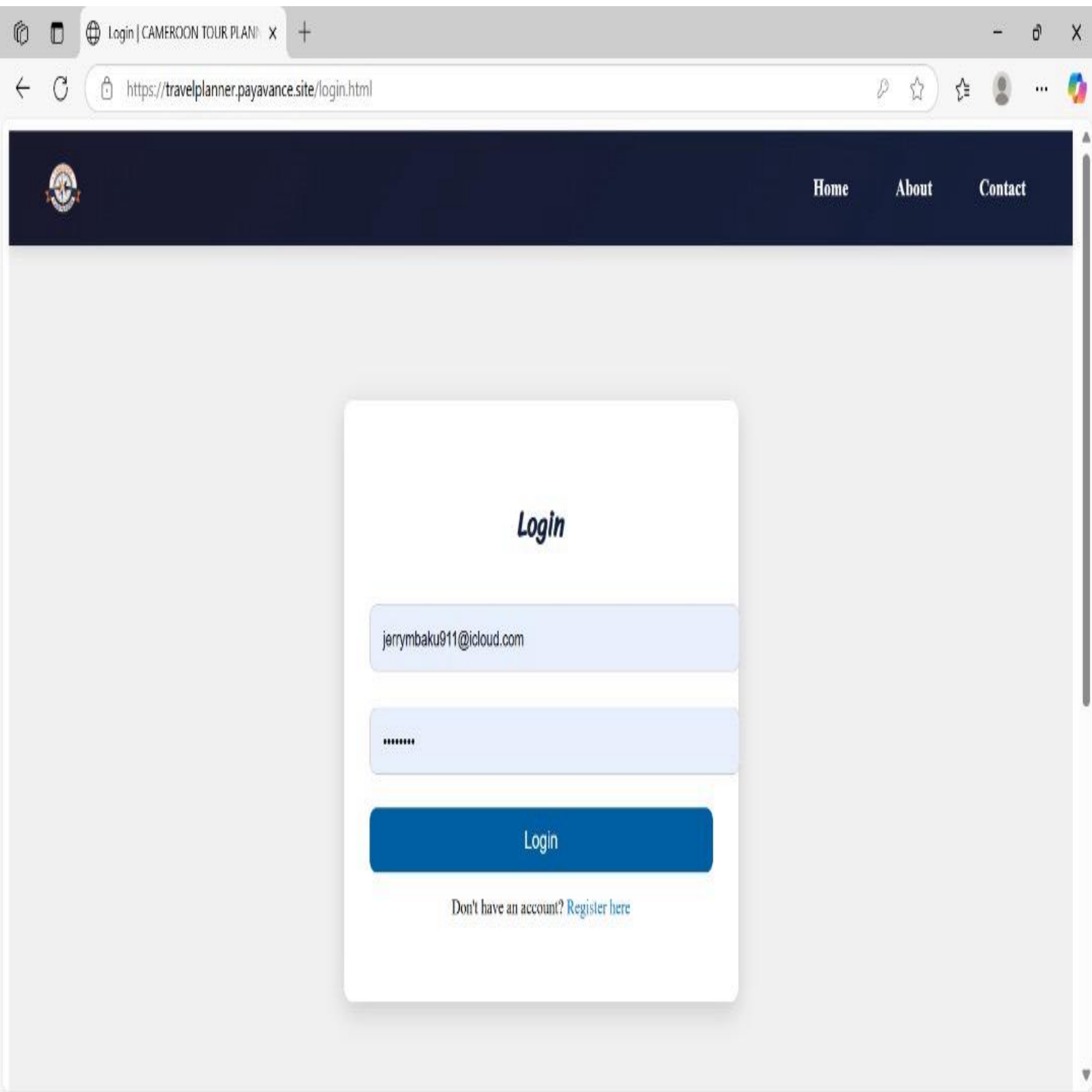
Leave a Review

Hotel Name

Your Review

Submit

Screenshots for login page



The screenshot shows a web browser window with a single tab titled "Login | CAMEROON TOUR PLAN". The address bar displays the URL "https://travelplanner.payavance.site/login.html". The website's header is dark blue, featuring a logo on the left and navigation links for "Home", "About", and "Contact" on the right. The main content area is light gray and contains a white login form. The form has the title "Login" in a bold, italicized font. It includes two input fields: the first contains the email address "jerrybaku911@icloud.com", and the second contains masked characters "*****". Below these fields is a blue "Login" button. At the bottom of the form, there is a link that reads "Don't have an account? Register here".

Login | CAMEROON TOUR PLAN x

https://travelplanner.payavance.site/login.html

Home About Contact

Login

jerrybaku911@icloud.com

Login

Don't have an account? [Register here](#)

CHAPTER FIVE: RECOMMENDATIONS AND CONCLUSION

In conclusion, our team successfully developed a travel planner system capable of handling hotel searches within budget, user authentication, map integrations, and cab bookings. We encountered challenges such as synchronizing tasks and map integration, but overcame them using collaborative effort and testing. Future recommendations include adding payment gateway integrations, user review features, and AI-based suggestions for travel itineraries.