



Capstone I Project Report

DerLeng

Submitted By:

Mr. Eng Vireak Sathy

Mrs. Sren Seavchhy

Mrs. Oem Rachna

Mrs. Vorn Sansutheavy

Mrs. Pleng Laihong

Mr. Eang Heysan

Under the advisory of:

Mr. CHHUON Sopheapmanith

Date of Defense: **December 24, 2025**

This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science degree with a specialization in Software Engineering in

Department of Computer Science

Faculty of Digital Engineering

បណ្ឌិត្យសាខប្រកតិទ្ធីជីវិះនុយុលា

ពិទ្ធិសាខប្រកពិទ្ធីជីវិះនុយុលា

មហាផិទ្ធីជីវិះយ ពិស្តិយុខីជីវិះនុយុលា

លេខាសិទ្ធិលេខាល្អូចកុំព្យូទ័រ

នគរបាលនៃព្រះរាជាណាចក្រកម្ពុជា

**លេខាសិទ្ធិក្រុម
ផ្ទៀងផ្ទាត់**

**៖ នេះ ពី៖ សេដ្ឋកិច្ច, ព្រៃន សេវាបណ្ឌិត្យ, ផ្លូវ
ពេល សាល់សុចាតិ, អើង បែន, និង ថាសាលា**

ភាពបន្ទុលការពាណិជ្ជកម្ម ៖ ថ្ងៃទី ២៤ ខែ មីនា ឆ្នាំ ២០២៤

និត្តព្រះរាជាណាចក្រកម្ពុជាដែល នគរបាលនៃព្រះរាជាណាចក្រកម្ពុជា ៖

រៀបចាយបណ្ឌិត្យសាខប្រកតិទ្ធីជីវិះនុយុលាលើ

រាជបាលនៃព្រះរាជាណាចក្រកម្ពុជា ថ្ងៃទី _____ ខែ _____ ឆ្នាំ _____

រៀបចាយ និង ឈ្មោះ និង ឈ្មោះ និង ឈ្មោះ

និង ឈ្មោះ និង ឈ្មោះ និង ឈ្មោះ

Cambodia Academy of Digital Technology
Institute of Digital Technology
Faculty of Digital Engineering
Department of Computer Science
CAPSTONE I REPORT OF

Mr. Eng Vireak Sathya

Mrs. Sren Seavchhy

Mrs. Oem Rachna

Mrs. Vorn Sansutheavy

Mrs. Pleng Laihong

Mr. Eang Haysan

Defense Date: December 24th, 2025

Capstone I Defense Authorization

President:

Phnom Penh,

Topic : DerLeng

Establishment : Cambodia Academy of Digital Technology

Advisor : Mr. CHHUON Sopheapmanith
PHNOM PENH



ACKNOWLEDGEMENT

We would like to express our heartfelt appreciation to Mr. CHHUON Sopheapmanith, who has played an indispensable role of guidance, supervision, and support in the course of this project development. His positive criticism, valuable recommendations, and expertise in his field of work were influential in our work direction and quality to a considerable extent.

We owe his patience and support particularly to every stage of the project and include the first proposal, business planning, system design, and documentation. The academic mentorship he gave us enhanced our knowledge of both the technical and analytical side of the venture.

We also recognize the fact that he was willing to give advice and clarification at the right time when challenges arose. Without his guidance and efforts, this project would not have been achieved like it was.

Abstract

At the dawn of the last few years, the sphere of tourism planning has been marked by a significant shift towards online platforms, with travelers relying more and more on online systems to find destinations, book accommodations, purchase services and design experiences. Although tourism-focused applications and websites have been increasing in number, most of them focus on limited aspects of traveling, like accommodation booking, travel attraction, or transportation. The disjointed eco system also forces the traveler to use at least two platforms at the same time, thus creating inefficiencies, unequal distribution of information, and allowing a constant sense of uncertainty in the itinerary-making process. These difficulties are more noticeable when the tourists pass through the emerging tourism destinations, where local information and reliable service providers are harder to determine.

To remedy these inefficiencies, the current project proposes the creation of a full tourism planning and service integration platform named Derleng that would be designed to serve the traveler and stay with him all the way through in the entire journey cycle, starting at the place of exploration and going into the experience at the field. Derleng is configured to support tourists in need of information regarding their travel plans by providing targeted and recommended travel destinations, travel planning, and context-specific information depending on personal preferences. In addition to the destination discovery experience, the site also supports the physical travel preparation process by suggesting necessities, showing the accommodation within the area around tourist attractions, and providing optional guided tours carried out by local guides.

The high priority of local economic empowerment and community-based tourism is a salient distinguishing feature of Derleng. In contrast to traditional platforms, which are driven by the desire to serve large commercial interests, Derleng embraces the use of local guides, guesthouses, homestays, restaurants and small service providers into its ecosystem. In bundling these services into integrated tourism packages, the platform enhances accessibility to tourists and at the same time, encourages sustainable sources of income to local communities.

The present report outlines the conceptual design, system architecture, business feasibility and methodological approach of the Derleng initiative. Currently, the project is in the design and prototyping stage; thus, the focus is directed on the requirement analysis, system modeling, business model, and interface design where Figma is used. The financial forecasts are based on similar platforms and based on realistic assumptions in regards to user growth and uptake of the services. Altogether, the conclusions allow saying that Derleng has significant potential to improve the efficiency of tourism planning, increase the confidence of tourists, and promote sustainable tourism development.

Table of Contents

Abstract.....	7
I. Introduction.....	9
2. Problem Statement.....	9
3. Objectives.....	10
4. Literature Review.....	10
Timeline.....	12
5. Methodology.....	12
5.1 SCRUM Framework Overview.....	12
5.2 SCRUM Roles.....	13
5.3 Project Timeline Using SCRUM.....	13
5.4 Upcoming Sprints (Development Phase – Planned).....	16
6. System Overview.....	16
7. Market Analysis.....	17
8. Business Model.....	17
Value Proposition.....	17
Customer Segments.....	18
Channels.....	18
Customer Relationships.....	18
Key Activities.....	18
Key Resources.....	19
Key Partnerships.....	19
Revenue Streams.....	19
Cost Structure.....	19
9. Financial Plan.....	20
Revenue Calculations:.....	20
TOTAL PROJECTED REVENUE (Quarterly).....	21
10. Challenges and Solutions.....	22
11. Conclusion.....	22
12. References.....	22
13. Appendices.....	23
Appendix A - Use Case Diagram.....	23
Appendix B - Activities Diagram.....	24
Appendix C Sequence Diagram.....	27
Appendix D Database Diagram.....	30
Appendix E DerLeng Business Model Canva (BMC).....	32
Appendix F UX/UI Wireframe (Figma).....	33

I. Introduction

Independent travelers and first time visitors mostly face confusion and lack of knowledge in the planning of their trips. There is a lack of an integrated platform, that is, one that includes destination discovery, travel preparation advice, accommodation choices, and local services. As such, passengers are forced to use a number of sites such as review sites, booking systems, social media, and blogs that leads to inconsistencies and decision paralysis.

Another big weakness is the inadequate contextual travel preparation. As much as there are several sites where people get information about attractions, they often fail to tell tourists of the necessary preparations, what to bring, culture or the best order of visits. This shortage is most especially eminent in developing tourism destinations where information may be obsolete or disconnected.

In addition, the local service providers face accessibility and visibility challenges. Small guesthouses, independent guides and local vendors do not have the technical capability to compete at the global level. As a result, tourists are denied original experiences, and local communities may lose possible sources of income.

Dermeng attempts to resolve these connected issues and suggests a centralized site which will help the tourists not only choosing the place of interest but will also help with the preparation, accommodation, packing of items and the finding of guides in the city.

II. Problem Statement

The lack of centralized, accessible and structured travel information causes problems to tourists visiting Cambodia, especially first time visitors. They are usually confused about where they want to go according to their interests, what services are offered in their areas, and what should be ready to visit the remote or culturally exclusive places. The current platforms are likely to offer local knowledge, scattered data or generalized recommendations that do not fully reflect the Cambodian travel potential.

The local business that is also affected by this problem includes homestays, small restaurants, transportation service, and local travel guides that are required to be seen by customers. Without a platform that enables them to reach tourists, most local service providers are denied a chance to earn revenues and compete with bigger and more international brands of tourism.

To help solve this two-sided problem, Derleng is planning on centralizing the travel information, service listings, item recommendations, and community content, which will make the process of travel planning more efficient and help the community-level tourism.

III. Objectives

The main aim of the Derleng project is to conceptualize and make a proposal of the digital platform that facilitates the planning of tourism activities through the integration of the necessary travel-related information and services into a single system. The site is meant to guide confused tourists about destinations by offering suggested trip recommendations based on reviews, tips and contextual advice.

The other objective that stands out is to increase travel preparedness. Instead of just providing support on destination discovery, Derleng tries to advise travellers on preparations before travel, such as what they should bring, cultural factors and sequencing of travelling. This objective is to fill a very crucial gap in the planning of tourism, which has mostly led to suboptimal travelling experiences.

In terms of socio-economic, the project is aimed at empowering local tourism stakeholders by utilizing them to become the direct services integrated into the platform. Through the involvement of local guides, accommodations and vendors in the packaged tourism services, Derleng promotes an inclusive development and justifies community based tourism.

Lastly, the project aims at proving the viability of building a scalable, secure and maintainable full-stack web app with modern technologies. Even though the implementation is yet to be done, the system design and architectural planning are designed in such a way that future development and expansion can be accommodated.

IV. Literature Review

Decade-long studies on the digital tourism platforms have largely centered on the user experience, personalization, and integration of the services. It has been established through empirical data that travellers are increasingly using end-to-end travel platforms, as opposed to fragmented ones. Studies of smart tourism systems emphasize the critical importance of data integration, real-time information, and localized content to increase tourist satisfaction.

The effectiveness of digital mediation in the planning process is proven by the successful results of empirical evaluation of established services like TripAdvisor, Airbnb, and other regional tourism apps. Nevertheless, academic sources present enduring limitations, such as excessive commercialization, shallow cultural display, and lack of support of service ecosystems on the local level. There is a strong promotion of community-based tourism models as the solution towards the development of sustainable tourism and the distribution of the economies.

Derleng fits such empirical observations since he gives more emphasis to integration, localization, and community participation. The platform aims at uniting technological efficiency with local authenticity, hence filling the gaps identified in previous research.

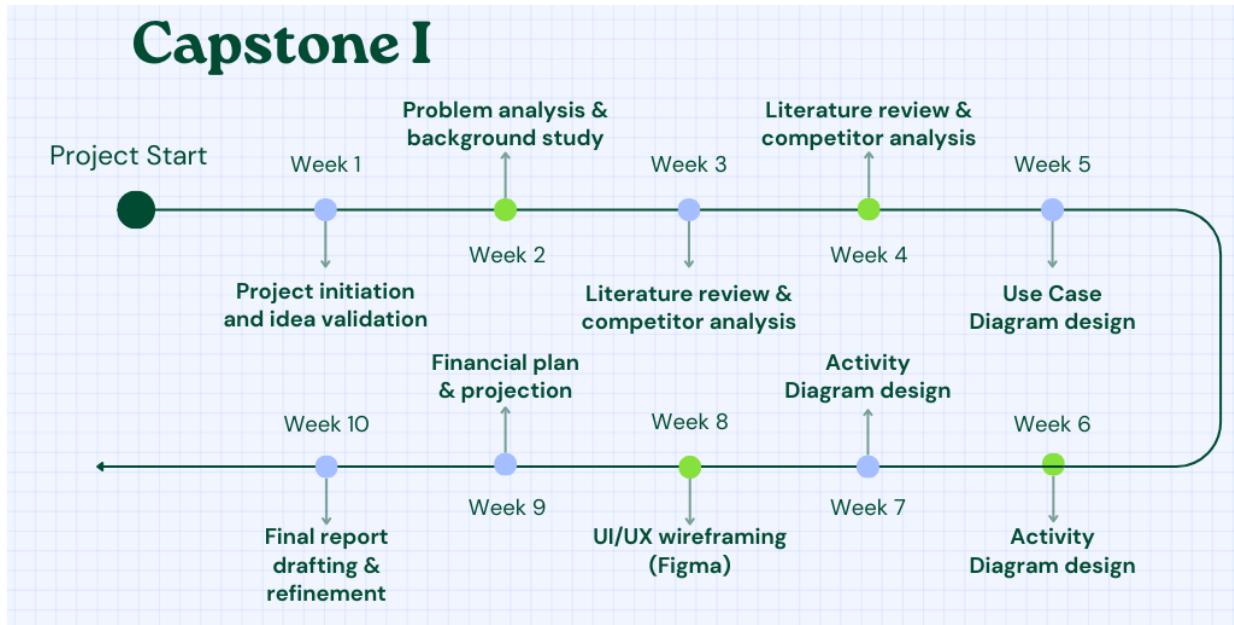
Comparison of Features with the existing tourism platforms

This comparison places Derleng within the context of the existing tourism-based applications, but with popularities disregarded and features as the central consideration. The analysis outlines the functional shortcomings that Derleng is set to deal with.

Feature / Platform	TripAdvisor	Uot App	Trip.com	Derleng (Proposed)
Destination discovery	✓	✓	✓	✓
User reviews & ratings	✓	✓	✓	✓
Local guide services	✗	Limited	✗	✓
Travel preparation guidance	✗	✗	✗	✓
Item preparation recommendations	✗	✗	✗	✓
Service packages (guide + stay + items)	✗	✗	✗	✓
Community-based tourism focus	Limited	✓	✗	✓
Local business empowerment	Limited	✓	Limited	✓
Personalized travel planning	Limited	✗	Limited	✓

The comparative evaluation offers that the existing systems are excellent in specific areas, but none of them offer a fully integrated solution that includes planning and preparation, services and community involvement in one platform, as postulated by Derleng.

Timeline



V. Methodology

This project follows the SCRUM Agile methodology, which is well-suited for iterative development and continuous refinement of system requirements. SCRUM allows the team to progressively develop the Derleng platform through short cycles (Sprints), frequent evaluation, and constant user feedback. Although the project is currently in the design and planning stage, SCRUM has guided how milestones were achieved over the past two months.

5.1 SCRUM Framework Overview

SCRUM divides the project into repeating time boxes called Sprints, typically lasting 2 weeks. Each Sprint includes:

- Sprint Planning – defining tasks and goals for the Sprint
- Daily Stand-Ups – short daily check-ins (can be weekly for student teams)
- Sprint Review – showing what was completed
- Sprint Retrospective – evaluating what can improve next Sprint

This structure ensures steady progress even before coding begins.

5.2 SCRUM Roles

Role	Responsibility
Product Owner (Sathya)	Defines the vision, requirements, and priorities of Derleng.
Scrum Master (Laihong)	Facilitates SCRUM processes, removes obstacles.
Development Team (Heysan, Rachna, Seavchy, Theavy)	Works on diagrams, UI designs, business planning, and (later) code implementation.

5.3 Project Timeline Using SCRUM

Below is a detailed table showing what your team completed in each Sprint. Since the project is still in conceptual and design phase, these Sprints focus heavily on research, planning, and UI/UX design—exactly as recommended in early SCRUM cycles.

SCRUM Sprints Table

Sprint	Duration	Goals	Tasks Completed	Deliverables
Sprint 1	Week 1–2	Understand problem context and tourism challenges in Cambodia	<ul style="list-style-type: none"> • Research user problems (tourists' difficulty selecting destinations) • Study local competitors: Uot and Tripadvisor • Write Proposal Document • Identify project scope & objectives 	<ul style="list-style-type: none"> • Initial Problem Statement • Preliminary Requirement List

Sprint 2	Week 3–4	Produce business justification and define value proposition	<ul style="list-style-type: none"> Draft Business Model Canvas (BMC) Identify stakeholders: tourists, local guides, small businesses Write initial Business Plan structure 	<ul style="list-style-type: none"> Full Business Model Canvas Draft Business Outline
Sprint 3	Week 5–6	Create system analysis diagrams	<ul style="list-style-type: none"> Define system use cases Create Use Case Diagram Create Activity Diagram (from user journey) Map system architecture (high-level) 	<ul style="list-style-type: none"> Use Case Diagram Activity Diagram System Architecture Diagram
Sprint 4	Week 7–8	Design UI/UX structure and develop proposal documentation	<ul style="list-style-type: none"> Create Figma prototype (homepage, destination browsing, service listing, community sections) Expand problem/solution sections Finalize business plan with financial projections 	<ul style="list-style-type: none"> Full Figma Design Project Proposal (format) Financial Plan & Revenue Model
Sprint 5	Week 9–10	Prepare final project report	<ul style="list-style-type: none"> Writing extended final report Literature review Methodology rewrite using SCRUM Consolidate diagrams and designs Finalize vision & implementation roadmap 	<ul style="list-style-type: none"> Final Report (the document)

Scrum meeting log

Date	Mode	Participants	Key Discussion Points
01-02 Oct 2025	Online	Team	Research user problems, Project idea validation, brainstorming

11 Oct 2025	In-person	Team	Study local competitors, Scope and objectives discussion, Project proposal
12 Oct 2025	Online	Team	Draft Business model brainstorming
16 Oct 2025	In-person	Team+Advisor	Review Project proposal, clarify path of the project
16 Oct 2025	Online	Team	BMC, feature approval, define MVP
20 Oct 2025	Online	Team	UML Diagrams refinement, Plan UX/UI wireframe on Figma prototype
23 Oct 2025	In-person	Team+Advisor	Review BMC and UML diagrams
30 Oct 2025	Online	Team+Advisor	Review Business plan and Project financial plan
19 Nov 2025	Online	Team	Mid-term progress update, Final report for Capstone I
20 Nov 2025	In-person	Team+Advisor	Mid-term presentation and progress update
10-12 Dec 2025	Online	Team	Finalize Figma prototype, Final report, and presentation
12 Dec 2025	In-person	Team+Advisor	Review Final report, Figma prototype, and slide presentation
19 Dec 2025	In-person	Team+Advisor	Prepare and practice for the presentation

5.4 Upcoming Sprints (Development Phase – Planned)

Sprint	Planned Work
Sprint 6	Backend setup: Node.js, Express, PostgreSQL schema
Sprint 7	React frontend setup, routing, initial pages
Sprint 8	API integration, authentication, destinations module
Sprint 9	Marketplace + guide booking features
Sprint 10	Testing, improvements, preparing final presentation

VI. System Overview

Derleng is designed as an online tourism application based on the modular full-stack architecture. Development of the front-end will happen using React in order to ensure responsive design, ability to reuse components and the ability to interact. The user interaction includes the exploration of products of a destination, exploration of services packages, user authentication, and profile management.

The back-end is developed based on the Node.js and Express that provide the RESTful API delivering the management of business logic, authentication, authorization, and service management. Authentication of the user will be implemented using the JSON Web Tokens (JWT) to ensure that there is a secure access to the protected resources. The reasons as to why PostgreSQL is selected as the database management system include its strong relational features, data integrity and aptness when dealing with the complex tourism-related data.

The system flow has been developed at the present intersection by using UML diagrams such as the use-case and activity diagrams, with the explicit aim of defining the interactions between the users and the system components. The UX and UI designs are completely prototyped in Figma, thus, allowing to validate the user flows and the interface usability beforehand.

VII Market Analysis

Derleng target market is mostly made of domestic and international travelers who prefer online travel planning software and travelling on their own. Such users are generally young people, students, and working people who use the online platform to organize trips effectively. In addition, the site will focus on the local tourism service providers who would like to have greater exposure and reach to tourists.

There is a consistent growth in tourism market specifically in the Southeast where digital adoption and use of mobile internet is increasing. Cambodia, specifically, has significant growth opportunities based on its cultural background, tourist attractions, and the fact that, there is an increasing interest in the international tourism.

Competitively, Derleng has a competitive edge in that it focuses on an integrated tourism service as opposed to individual functionalities. The fact that its focus is on preparation advice, tourism packages, and community tourism provides a competitive edge that can be matched with the current trends in favor of experiential and sustainable travel.

VIII. Business Model

DerLeng project embraces a platform-based business model that is aimed at integrating tourism discovery, service facilitation, and community to form a single ecosystem. The business model is designed to deal with the disintegrated character of the current tourism services by supplying localized, experience based solutions in addition to sustainable economic involvement of the local stakeholders.

Value Proposition

DerLeng is a localized and detailed tourism solution that helps tourists during their whole trip including planning and on-site experience. Contrary to the traditional tourism websites that predominately cater to the functions of accommodation reservation or reviews of the destination, DerLeng gives a priority to providing contextual advice, cultural sensitivity, and sensible travel preparation. The platform facilitates users to find places to visit, find accommodation around them, get in touch with local guides, and get suggestions of necessary items that they need to carry on the trips. With these services consolidation into integrated packages, DerLeng eliminates the unpredictability of the travelers in addition to improving convenience and confidence. Concurrently, the platform enables the local service providers to be empowered by providing direct access to the tourists and allowing them to provide curated experiences.

Customer Segments

DerLeng is aimed at several customers in the tourism ecosystem. The main segment will comprise both local and foreign tourists that travel to Cambodia, especially first time travelers and young tourists who need guidance and organised travelling services. The second segment is composed of students and cost-conscious travellers who want to get low-end and decent local experiences. Moreover, DerLeng works with the local stakeholders who include tour guides, homestay owners, accommodation providers, and small businesses that provide travel-related products. The platform also gives these service providers greater exposure and reach to more customers.

Channels

DerLeng has the main channel as a web-based application, which is available as an app with modern browsers and does not need any special devices. Social media channels that will be utilized in marketing, sharing of content and community interaction will be the supporting channels. Additional outreach is reinforced by word-of-mouth referrals and collaborating with local tourism organizations. During its later stages, partnerships with educational organizations and tourism bodies will provide it with a greater audience and user base.

Customer Relationships

DerLeng puts the stress on self-service but community-based model of customer relationship. Users communicate with the site on their own and navigate destinations, reserve services, and engage in conversations. User generated reviews, ratings and community forums that allow the travellers to share experiences and tips enhance trust and engagement. The recommendation functions deliver unique advice based on the customer preference and behaviour that improves customer satisfaction and foster a repeat use. A second element that ensures the platform is credible is trusted local service providers and content that is moderated.

Key Activities

DerLeng main business is the development of the platform, maintenance of the system, and constant development of features. Tourism information has to be relevant and accurate; this depends on content curation and moderation. The other essential operation is onboarding and management of partnerships with the local guides, accommodation facilities, and item sellers. The user acquisition and marketing will focus on expanding the platform to more users, and the community management will focus on ensuring that people are active and maintain a healthy relationship within the platform.

Key Resources

The main assets of DerLeng include the development team, who will be in charge of front-end, back-end, and database development, and infrastructure; hosting and cloud services. The other sources are the tourism-related data, edited content, and formed collaboration with local services providers. The brand name and design resources of the platform, as well as trust gained through user interaction, are also the intellectual assets that contribute to long-run success.

Key Partnerships

DerLeng is a firm that depends much on local tour operators, hotels, and small businesses that provide travel-related amenities. Such collaborations allow the platform to provide complete service packages and local experiences. Partnering with tourism societies, higher education bodies and student organisations also facilitate early validation and content creation. Collaboration with tourism organisations and non-governmental organisations could increase the credibility and service provision in the future.

Revenue Streams

DerLeng also has several sources of revenue to make sure that it is financially stable. One of the main sources of revenue is selling packaged tourism products that comprise of local guiding services, accommodation, and suggested travelling products. The site also receives commissions on local service providers on every successful transaction that is achieved via the system. Further earnings come in the form of advertising spots to local companies and a marketplace style that allows sellers to sell travel related products directly to the user base. This diversification of revenues will decrease the reliance on one source of revenue and will help to scale.

Cost Structure

DerLeng consists of cost structure that comprise of fixed and variable costs. Big expenses include platform development, hosting of the system, and maintenance. Another major cost is marketing and promotional costs, which are incurred during initial stages of growth. Such operation costs are content moderation, partner management, and administration. The cost of human resource in terms of development, design and managing of the system is also taken into consideration. These are well matched with the expected revenue growth in order to sustain financial feasibility.

IX. Financial Plan

The budget plan will have a 3 year quarterly forecast which estimates the user growth, revenue, expenditure and profit. These estimates are based on traditional early-stage tourism platforms models considering that the platform is still in its design phase.

User Growth Assumption:

The growth starts gradually due to the MVP stage and increases with the increase in the marketing activities, collaborations, and features on the platform. The forecast follows a small growth curve which is often encountered with digital platforms in the developing markets as they increase by an average rate of 200-300% yearly.

Revenue Calculations:

1. Guide Package Revenue

- Through the platform, tourists book licensed local guides.
- Derleng will be left with a commission of 10% only.
- With a guide package average price of USD 50 per tourist
- The revenue obtained is $USD\ 50 \times 10\% = USD\ 5$ per booking.

2. Accommodation Package

- The hotels and homestays partnerships provide
- Average price of the booking per night of \$40.
- The 10% commission will amount to 10% of the reservations sent in by Derleng
- Which is $\$40 \times 10\% = \4 .

3. Marketplace Commission

- Selling of souvenirs and local products translates to
- Average transaction value of \$8 per user
- The commission of 10% would earn the revenue of \$0.80 on every sale.

4. Advertisements

Local restaurant, tuk tuk and tourist business ads have an average cost per user per month of \$0.05.

TOTAL PROJECTED REVENUE (Quarterly)

Year	Quarter	Total Users	Active Users	Guide Package	Essentials Package	Accommodation Package	Marketplace	Ads
Y1	Q1	500	200	$200 \times 8\% \times 5 = \80	$200 \times 12\% \times 3.75 = \90	$200 \times 10\% \times 4 = \80	$200 \times 15\% \times 0.8 = \24	\$10
	Q2	1,200	480	\$192	\$216	\$192	\$57.6	\$24
	Q3	2,500	1,000	\$400	\$450	\$400	\$120	\$50
	Q4	4,000	1,600	\$640	\$720	\$640	\$192	\$80
Y2	Q1	6,000	2,400	\$960	\$1,080	\$960	\$288	\$120
	Q2	9,000	3,600	\$1,440	\$1,620	\$1,440	\$432	\$180
	Q3	13,000	5,200	\$2,080	\$2,340	\$2,080	\$624	\$260
	Q4	18,000	7,200	\$2,880	\$3,240	\$2,880	\$864	\$360
Y3	Q1	24,000	9,600	\$3,840	\$4,320	\$3,840	\$1,152	\$480
	Q2	31,000	12,400	\$4,960	\$5,580	\$4,960	\$1,488	\$620
	Q3	39,000	15,600	\$6,240	\$7,020	\$6,240	\$1,872	\$780

	Q4	48,000	19,200	\$7,680	\$8,640	\$7,680	\$2,304	
--	----	--------	--------	---------	---------	---------	---------	--

X. Challenges and Solutions

Another key issue that was experienced in the course of the project was the scheduling of the teams. This was hindered by conflicting academic schedules and individual obligations which relied on asynchronous communication tools. This sometimes slackened the decision making and feedback.

The other difficulty lies in the fact that there are no real user figures since the platform is not yet developed. Projections of finances and user growth are thus made based on assumptions and comparative analysis as opposed to usage data. Moreover, the aspect of long-term accuracy of data, as well as the reliability of partners, is one of the possible operation issues.

XI. Conclusion

Derleng is an all-inclusive and a progressive model of tourism planning in that it mitigates the shortfalls of the existing tourism platforms. The platform provides valuable value to travellers and the local service providers by incorporating the elements of destination discovery, travel preparation guidance, service packaging, and community participation into one system.

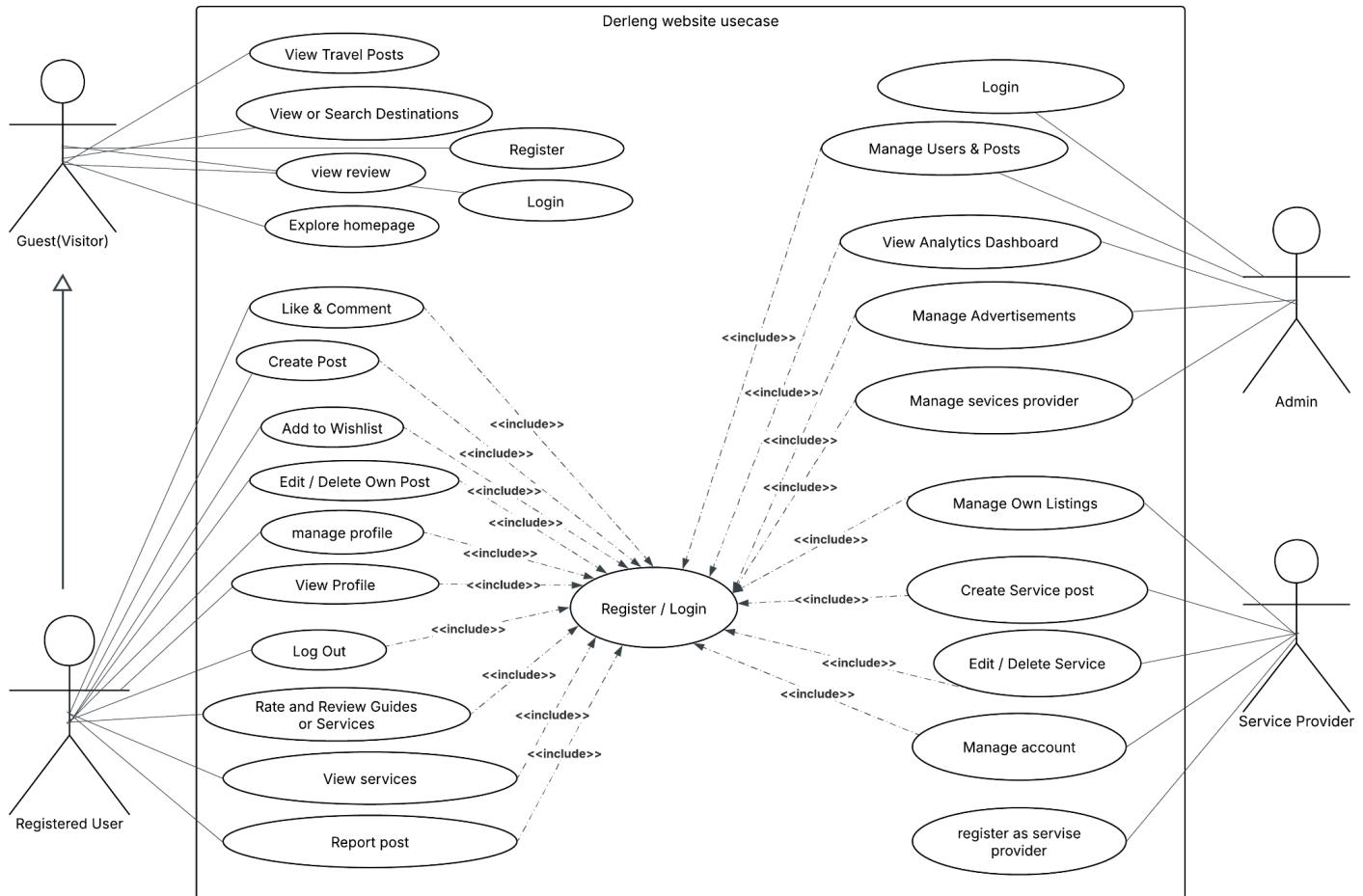
During the design and prototyping of the project, however, a lot of planning, modelling, and feasibility analysis, help to underline the high potential of the implementation of the project in the future. As it continues to grow, Derleng will be able to support sustainable tourism practice, enhance traveller confidence, and support inclusive economic development among the local communities.

References

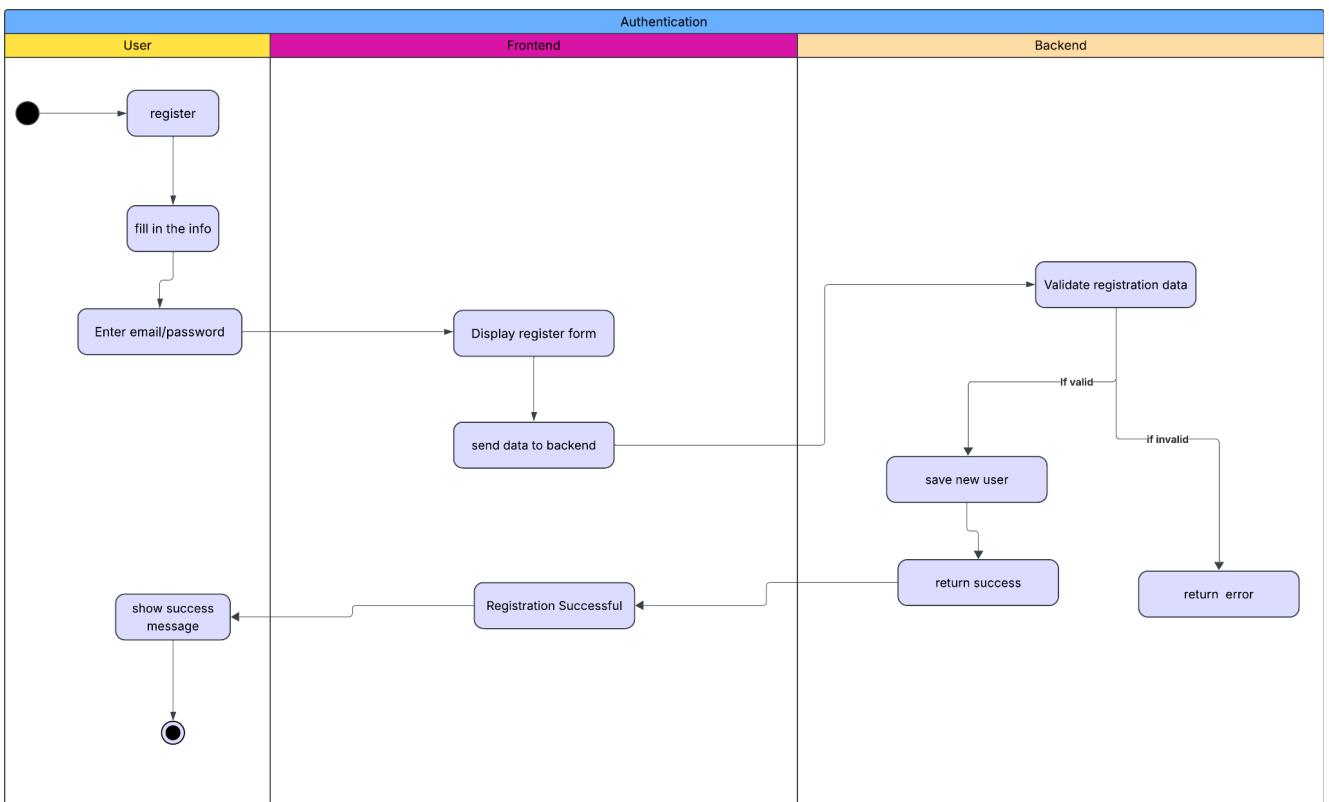
- [1] “KINGDOM OF CAMBODIA NATION RELIGION KING,” Sep. 2023. Available: <https://asset.cambodia.gov.kh/tourism/2023/11/CAM092023.pdf>
- [2] TripAdvisor, “TripAdvisor: Read Reviews, Compare Prices & Book,” *TripAdvisor*, 2025. <https://www.tripadvisor.com>
- [3] Bamnang, “Bamnang | Explore Now,” *Bamnang*, Jul. 28, 2025. <https://bamnang.com> (accessed Nov. 29, 2025).
- [4] Node.js, “Node.js,” *Node.js*, 2025. <https://nodejs.org/en>
- [5] React, “React – a JavaScript Library for Building User Interfaces,” *Reactjs.org*, 2022. <https://reactjs.org/>
- [6] The PostgreSQL Global Development Group, “PostgreSQL: The world’s most advanced open source database,” *Postgresql.org*, 2019. <https://www.postgresql.org/>
- [7] tailwindcss, “Tailwind CSS - Rapidly build modern websites without ever leaving your HTML.,” *tailwindcss.com*, 2025. <https://tailwindcss.com/>

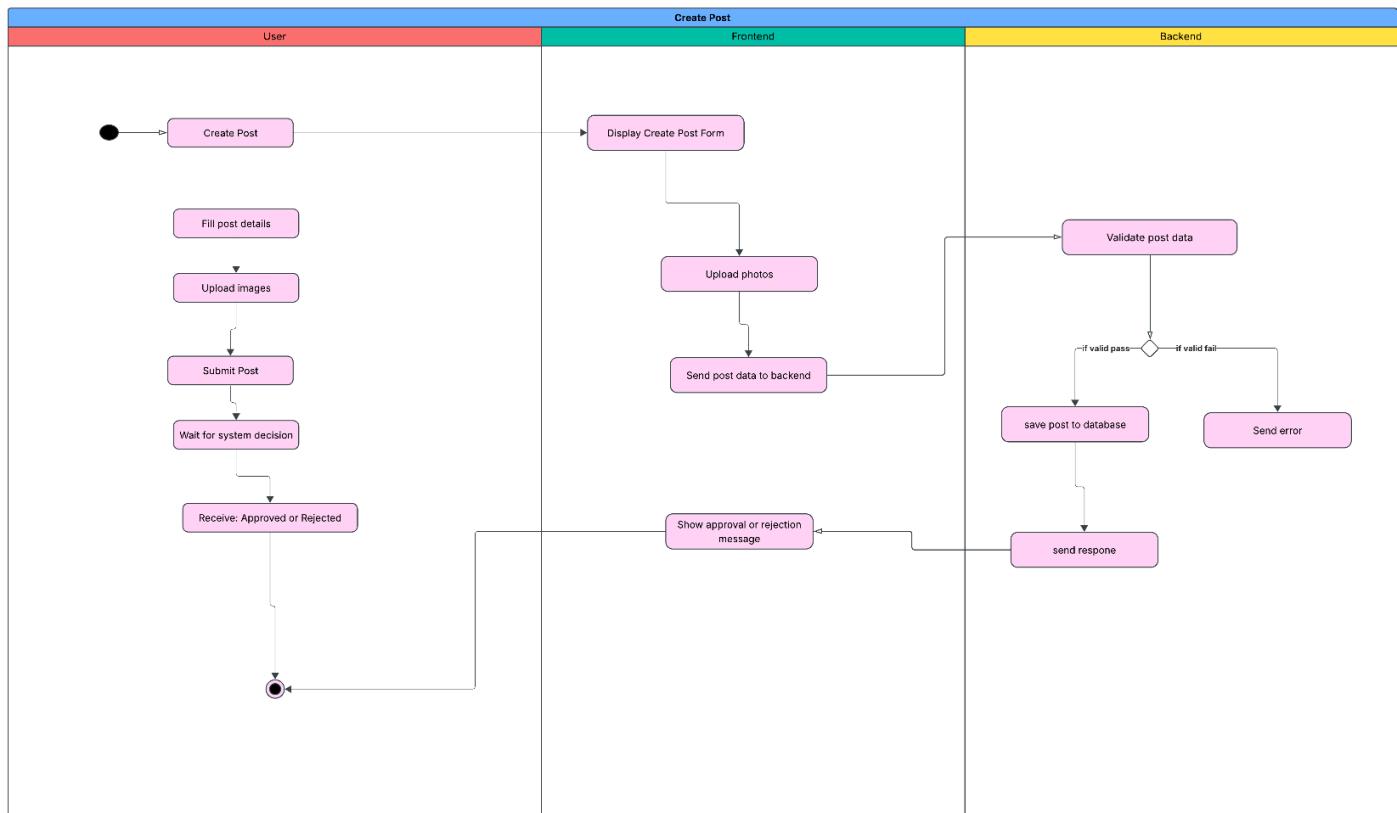
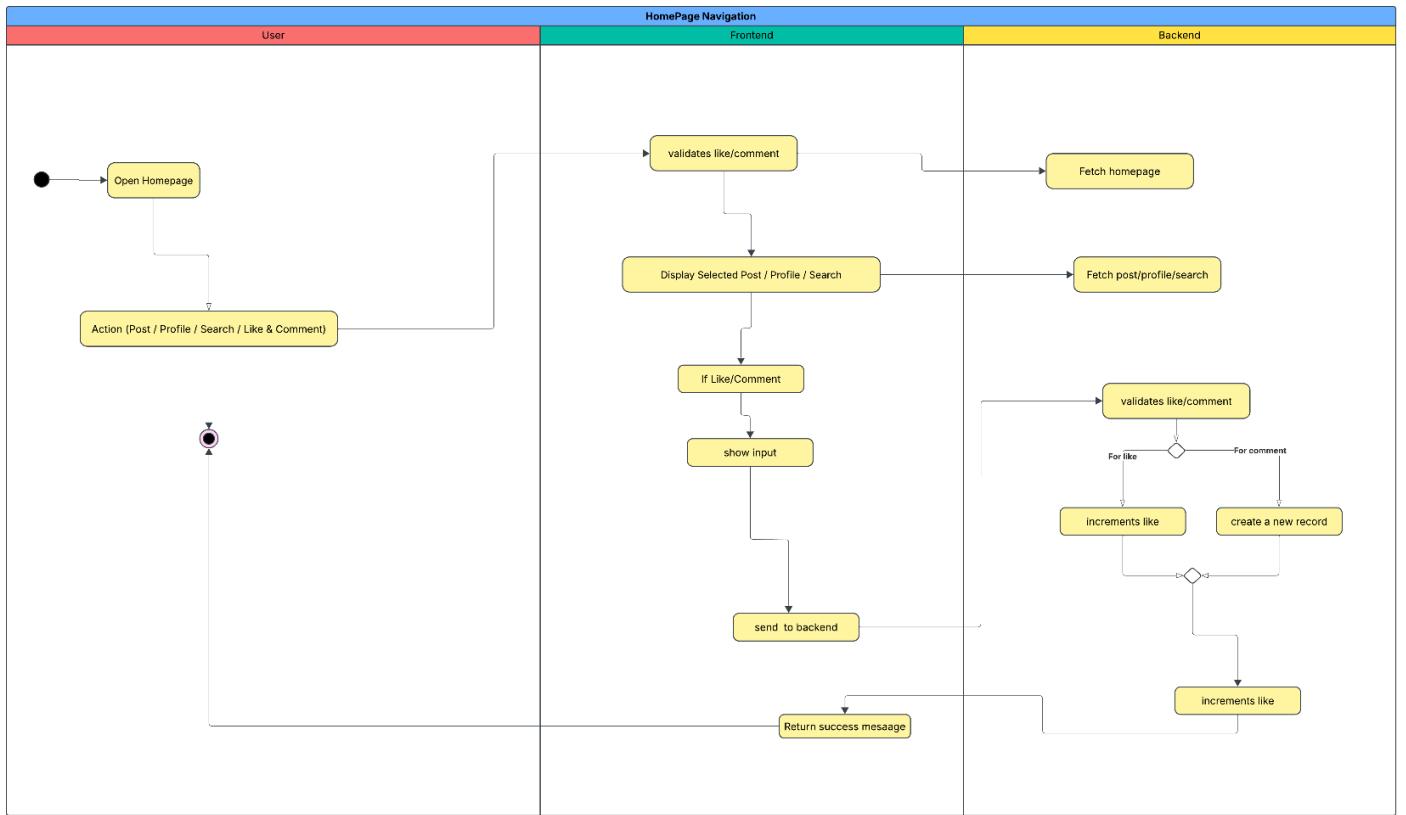
Appendices

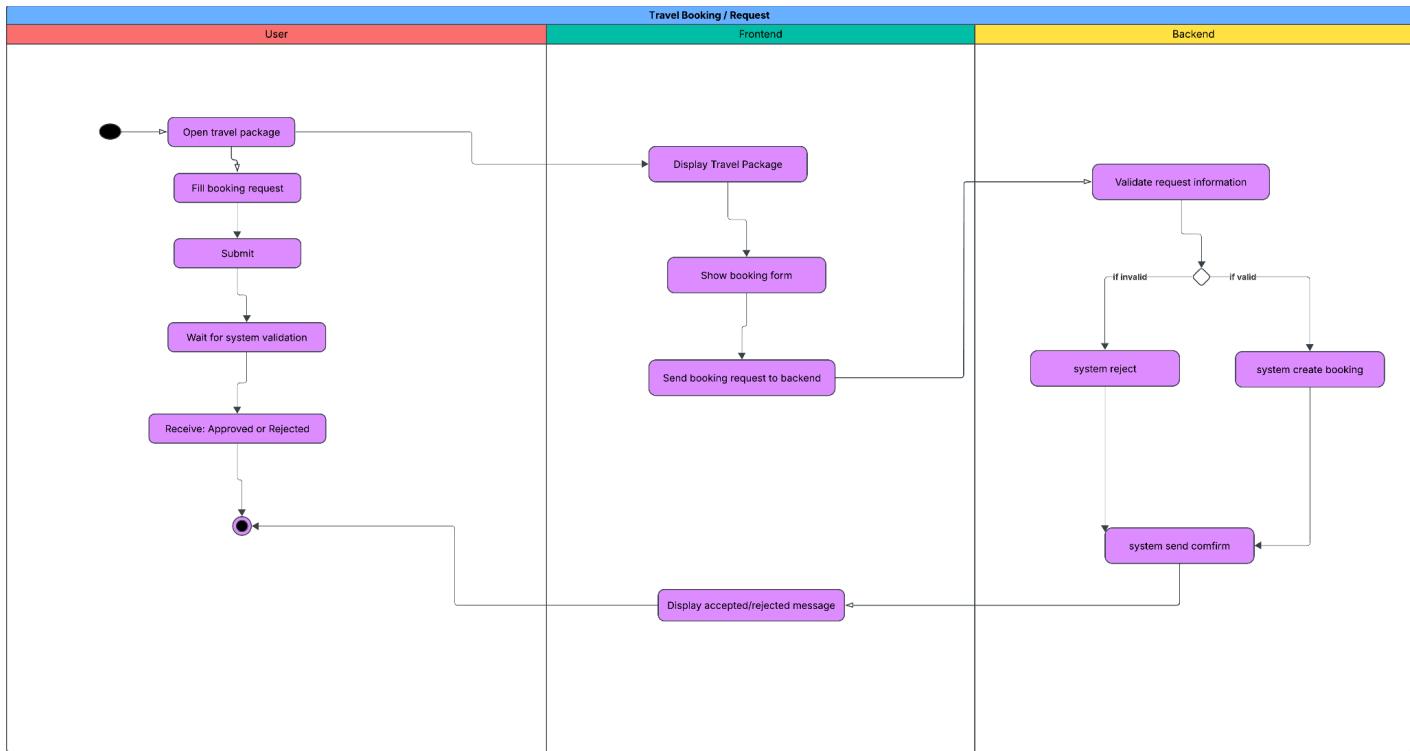
Appendix A - Use Case Diagram



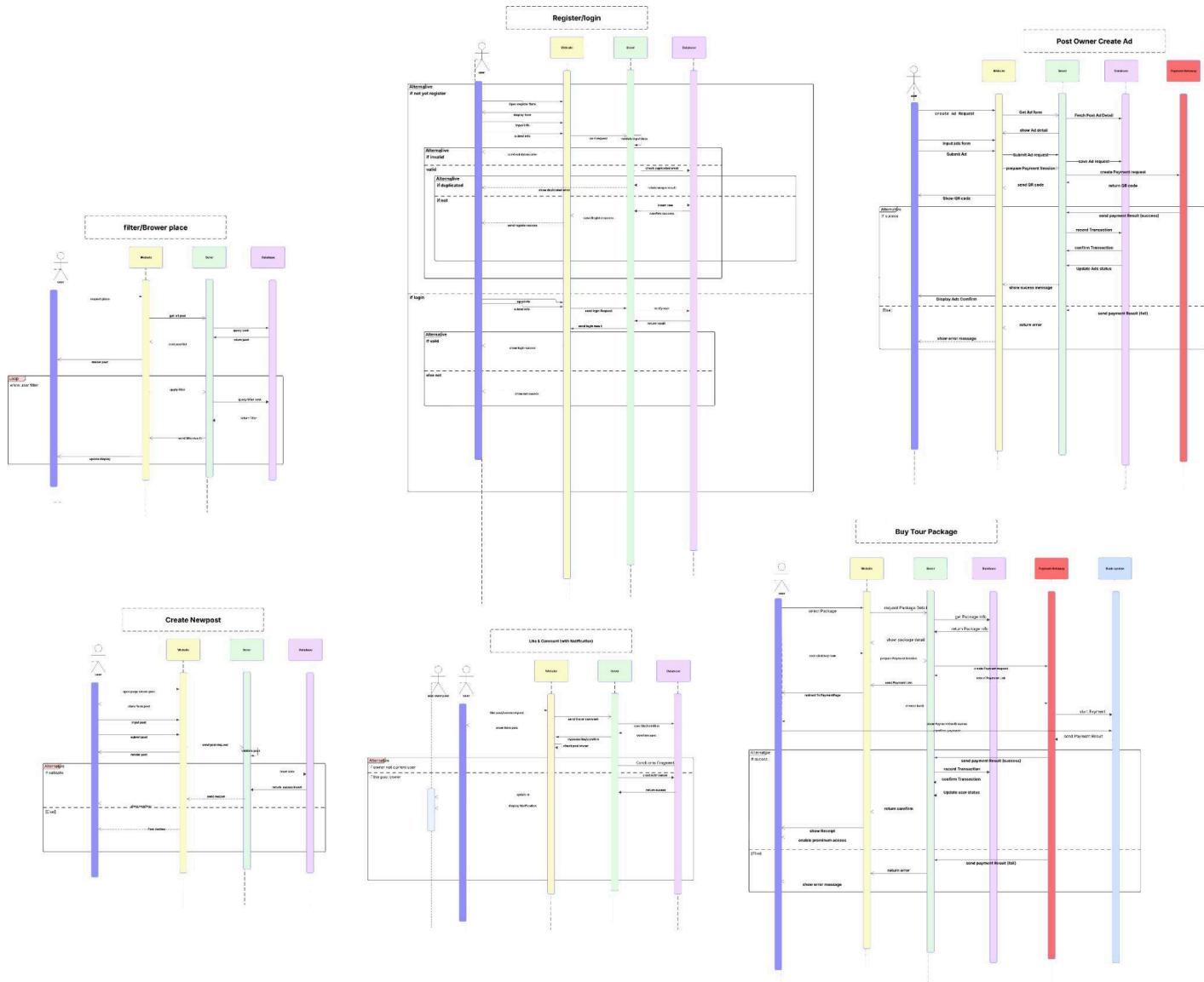
Appendix B - Activities Diagram



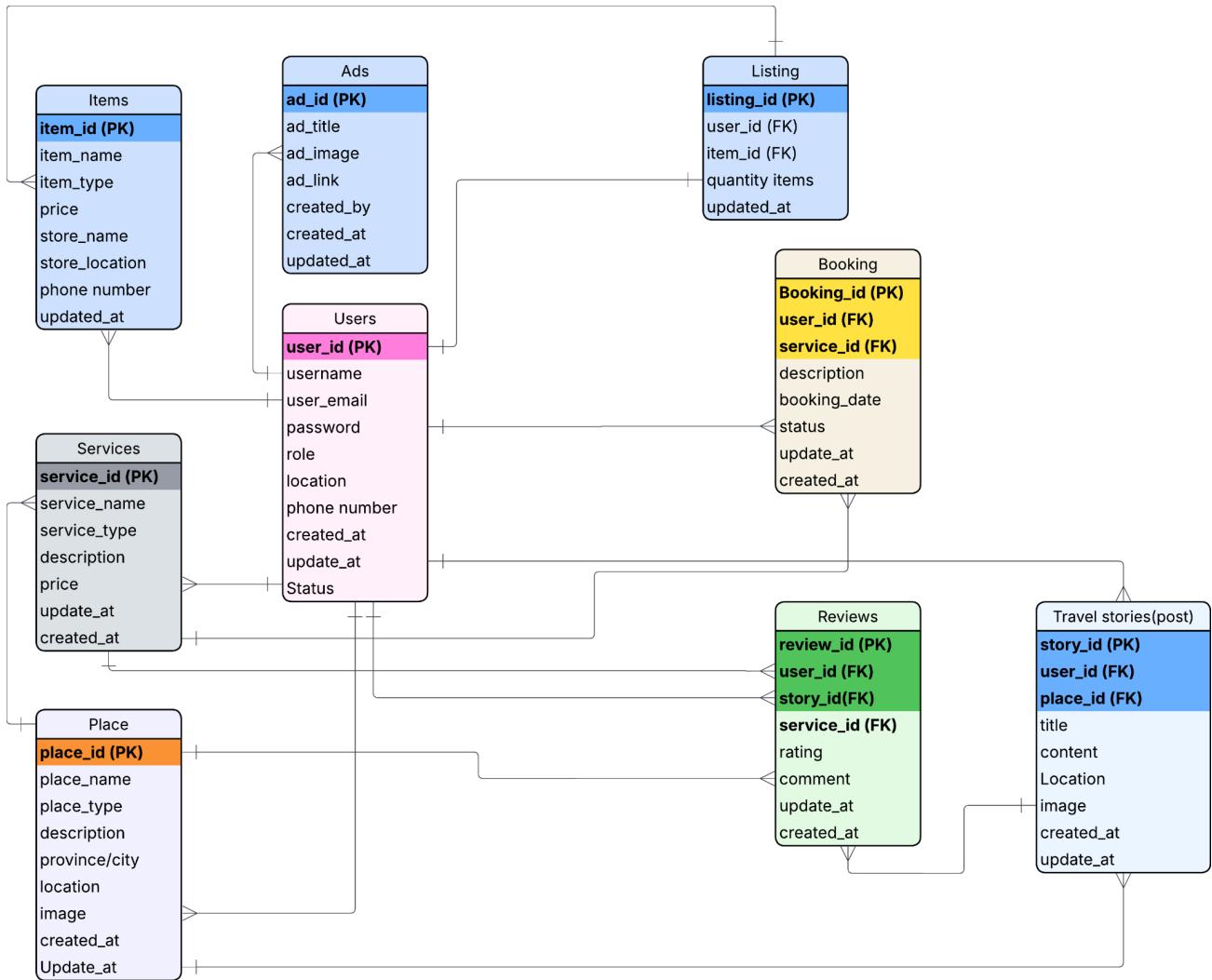




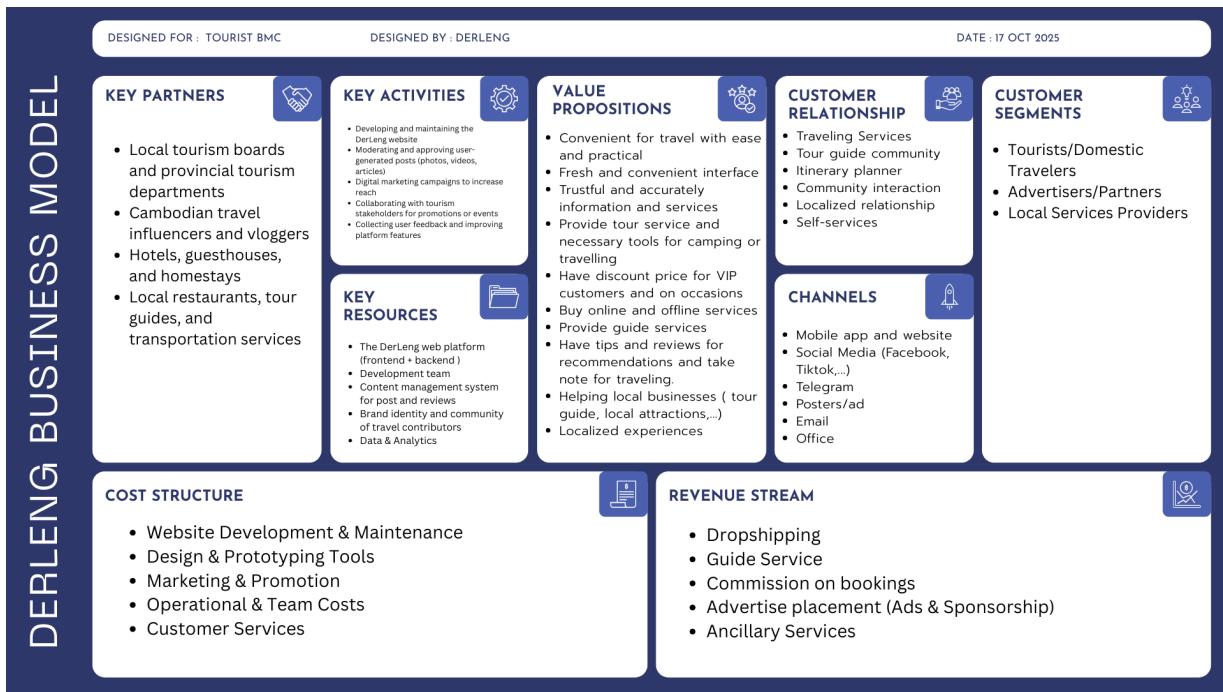
Appendix - C Sequence Diagram



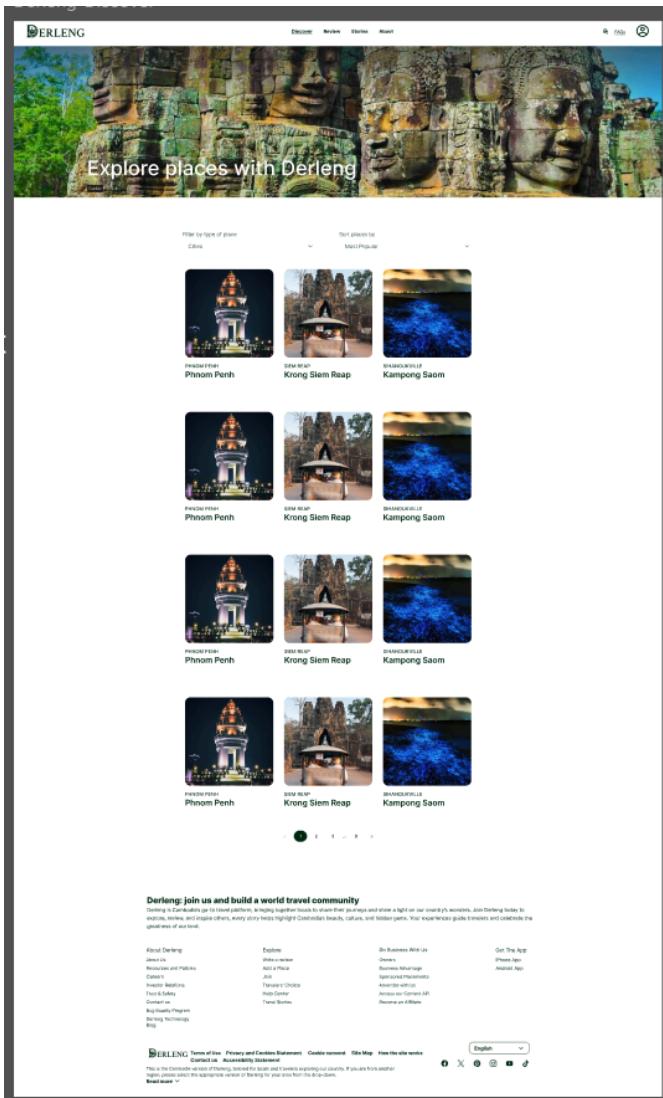
Appendix - D Database Diagram



Appendix - E DerLeng Business Model Canva (BMC)



Appendix - F UX/UI Wireframe (Figma)



Derleng-Homepage-SearchAll

DERLENG

Discover Review Stories About

ເລືອກຕີເລີດ?

Search All Hotel & Services Inventory Booking Your Itinerary

ເລືອກຕີເລີດ

DERLENG
Derleng Cambodia Together
100% Cambodian ownership and management. Let us guide you there.
About us

Find things to do by interest
Whatever you like, we've got it.

City Life **Adventure** **Relaxing** **Historical**

2025's Top Attractions in Cambodia
A total of 1,800 new international visitors in the first nine months of 2025.

Explore Phnom Penh Hidden Gems

Booking places for you

Take a Flying Boat and Visit Wat Preah Prom Rath Mountain (302 Years Old) - 100% Cambodian owned and operated.

Phnom Penh Street Food: Serey Chreav, Fresh Fishes & Bok Bok.

Ultimate Phnom Penh Food Hunt & Adventure on Walk Street.

Private Phnom Penh City Tour Off-Road Adventure on Mekong River Cruise.

Your Stories Matter To Our Nations

Inspired by Cambodians, sharing stories from around the world to Angkorian culture, inspiring tourism and records tourism sites. Together, our stories help Cambodia thrive.

Learn More

Inspiration to get you going

Your go-to place for upcoming Khmer Festival

The Old Market, Prince Sisowath and Fabulous Savu Pepper Crabs

Brighten Up on a Budget! Bike or Tuk-Tuk Adventures

Cambodian Flavors

Discover delicious Cambodian Flavors

DERLENG

Derleng-Stories

DERLENG

Discover Review Stories About

Travel Stories

The 10 best things to do in Siem Reap, Angkor Wat

The best photographic spot in Cambodia, Phnom Penh city

Sihanoukville, Koh Rong Island the paradise

BEACHES
Koh Rong, Cambodia's Backpacker Paradise Island
Oct 16, 2024 • 4 min read
All across Southeast Asia I heard the same 2 words whispered over and over again by backpackers and travellers – “Koh Rong”.

BEACHES
Koh Rong, Cambodia's Backpacker Paradise Island
Oct 16, 2024 • 4 min read
All across Southeast Asia I heard the same 2 words whispered over and over again by backpackers and travellers – “Koh Rong”.

BEACHES
Koh Rong, Cambodia's Backpacker Paradise Island
Oct 16, 2024 • 4 min read
All across Southeast Asia I heard the same 2 words whispered over and over again by backpackers and travellers – “Koh Rong”.

BEACHES
Koh Rong, Cambodia's Backpacker Paradise Island
Oct 16, 2024 • 4 min read
All across Southeast Asia I heard the same 2 words whispered over and over again by backpackers and travellers – “Koh Rong”.

BEACHES
Koh Rong, Cambodia's Backpacker Paradise Island
Oct 16, 2024 • 4 min read
All across Southeast Asia I heard the same 2 words whispered over and over again by backpackers and travellers – “Koh Rong”.

DevEng-Places

STERLENG

Discover Review Stories About

PHNOM PENH

Overview

Phnom Penh, the capital city of Cambodia, is situated at the confluence of the Mekong, Bassac and Tonle Sap rivers. Once known as the 'Pearl of Asia'

Stay inspired in Cambodia

Discover hidden gems you never imagined existed.

Must-see attractions

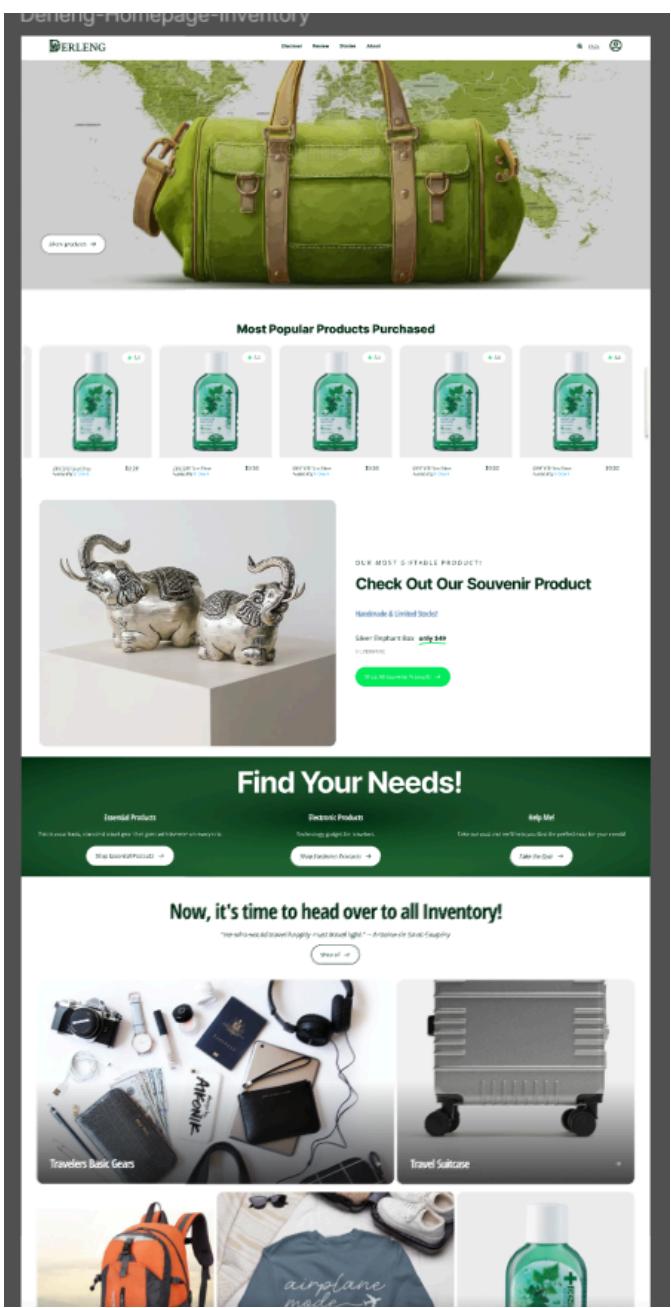
INDEPENDENCE MONUMENT NORODOM BLVD, PHNOM PENH

JOIN THE FUN

Phnom Penh night life

Let the experience guide you

STERLENG GET STARTED →



I'm

Derleng-Hotel&Service

DERLENG

[Discover](#) [Review](#) [Themes](#) [About](#)

HOTEL AND SERVICE

Derleng is Cambodia's travel platform, bringing together locals to share their journeys and stories in light of our country's wonders. Join us today to explore the beauty, culture, and hidden gems of our country. We highlight Cambodia's history, culture, and hidden gems. Your suggestions, guide & reviews, and reviews the greatness of our land.

SEARCH Where would you like to go?

ARRIVAL DATE 01-JUL-2024

DEPARTURE DATE 02-JUL-2024

NUMBER OF GUESTS 1 Room, 2 Guests

BROWSE BY DESTINATION

Now, it's time to head over to all Inventory!

DERLENG

Discover Review Stories About



Celebrate Christmas in true holiday spirit with us!

- USD 10.20 per person (Price Only)
- USD 10.20 per person (Price Plus Scrolling Meal)

With 2000 seats available and 1000 seats at our private rooftop branch, come to make your day feel like a special dinner or just sit in the warmth and magic of the season as we bring you an enchanting afternoon filled with delicious festive delights. [View Details](#)

[JOIN THE FESTIVAL HERE!](#)

Available Experiences



Courtyard by Komsan Kompong Phluk Resort
Lok Lak

Experience the best of Asian cuisine and International dishes at Lok Lak. Located in Glem River, our signature restaurant offers all-day dining and private rooms for special occasions.

[Find Out More](#)

More Offers At This Property



Book Now with Resort Credit

Make your stay even more rewarding with our package.

[Book Now](#)

Derleng: join us and build a world travel community

BERLNG

Discover Review Stores About

WELCOME TO KEP

FIND HOTELS | ADD HOTEL | HOTELS 1 Hotels, 2 Guests | DIRECT BOOKING | AGENT IDATA | SEARCH

TOP HOTELS IN KAMPOT

KOMSAH KAMPOT RESORT
4.8 (34 Reviews)
From \$68
[Check Availability](#)

KOMSAH KAMPOT RESORT
4.7 (352 Reviews)
From \$41
[Check Availability](#)

KOMSAH KAMPOT RESORT
3.5 (38 Reviews)
From \$30
[Check Availability](#)

KOMSAH KAMPOT RESORT
4.0 (37 Reviews)
From \$55
[Check Availability](#)

RESORT

KOMSAH KAMPOT RESORT
4.9 (35 Reviews)
From \$88
[Check Availability](#)

KOMSAH KAMPOT RESORT
4.7 (352 Reviews)
From \$81
[Check Availability](#)

KOMSAH KAMPOT RESORT
4.2 (128 Reviews)
From \$30
[Check Availability](#)

KOMSAH KAMPOT RESORT
4.2 (27 Reviews)
From \$35
[Check Availability](#)

FIND THE RIGHT HOTEL FOR YOU

VERLENG

Discover Hotel Suites About



Welcome Komsan Kompot Resort

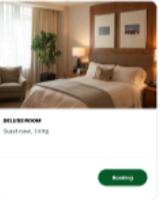
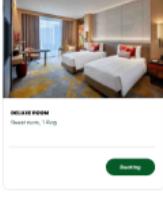
OUR SUITES IN KOMPOT OFFER LUXURY AMENITIES.

Relax in your private oasis, our local rooms in
Kompot offer a serene retreat.

Discover stylish local rooms with design-
inspired details inspired by aspects of Krom
and its culture.

Relax in luxury amenities, private sundeck
bedrooms, spacious workspace and high-
speed WiFi.

All Rooms

 <p>DELUXE ROOM 1 King</p> <p>Booking</p>	 <p>DELUXE ROOM 1 King</p> <p>Booking</p>	 <p>DELUXE ROOM 2 Bed rooms</p> <p>Booking</p>
 <p>DELUXE ROOM 2 Bed rooms</p> <p>Booking</p>	 <p>DELUXE ROOM 1 King</p> <p>Booking</p>	 <p>DELUXE ROOM 1 King</p> <p>Booking</p>
 <p>DELUXE ROOM 1 King</p> <p>Booking</p>	 <p>DELUXE ROOM 1 King</p> <p>Booking</p>	 <p>DELUXE ROOM 2 Bed rooms</p> <p>Booking</p>

Derleng-Hotel&Service

DERLENG

Experience Comfort & Luxury

DELUXE ROOM

60 m², 1 King, Room
\$280 / night
HOTEL FEATURES: WiFi, King Size Bed, Air Conditioning, Balcony

BOOK ROOM

User Name:
Phone Number:

Check In: 01/01/2015
Check Out: 01/02/2015

Extra Services:
Dinner: \$10/pax
Breakfast: \$10/pax

Total: \$340

Our Hotel

Rooms are elegantly decorated. All rooms include a private balcony overlooking either an ocean view deck or our relaxing common areas. All bedrooms have bright solar lighting and have en-suite walk-in robes. There is plenty to discover in the village surrounding the hotel, which is perfect for strolling and cycling hours. Free English, Mekong, High-Tea, bicycles, water sports, and fishing guides.

Location

Derleng: join us and build a world travel community

Derleng is Cambodia's go-to low-cost travel, bring us together. Access to all their features and others from our community members. Join Derleng today to start your own travel blog, write reviews, share your travel tips, and connect with other users of our site.

[About Derleng](#) [Help](#) [Get Involved](#) [Businesses on Derleng](#) [Derleng App](#) [iPhone App](#) [Android App](#)

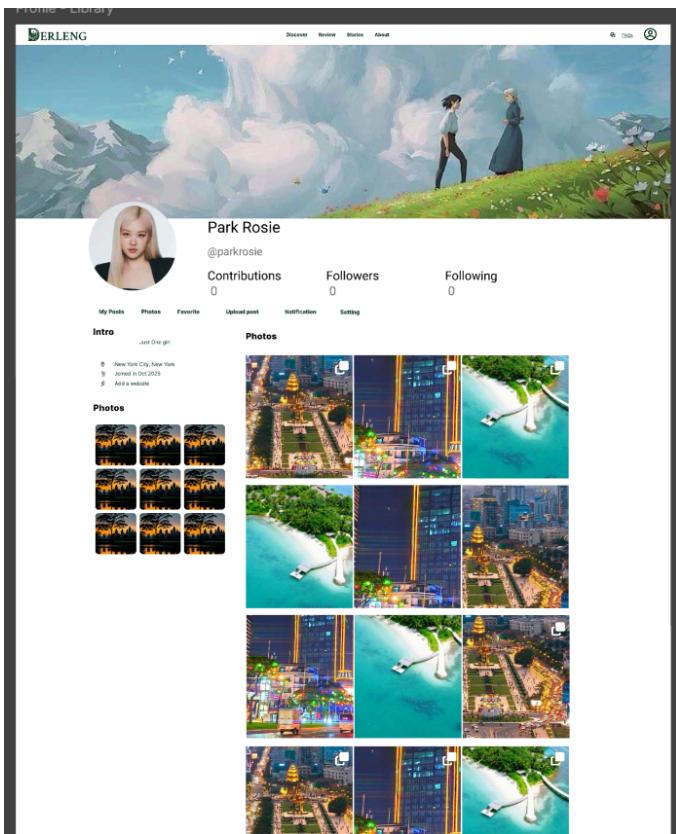
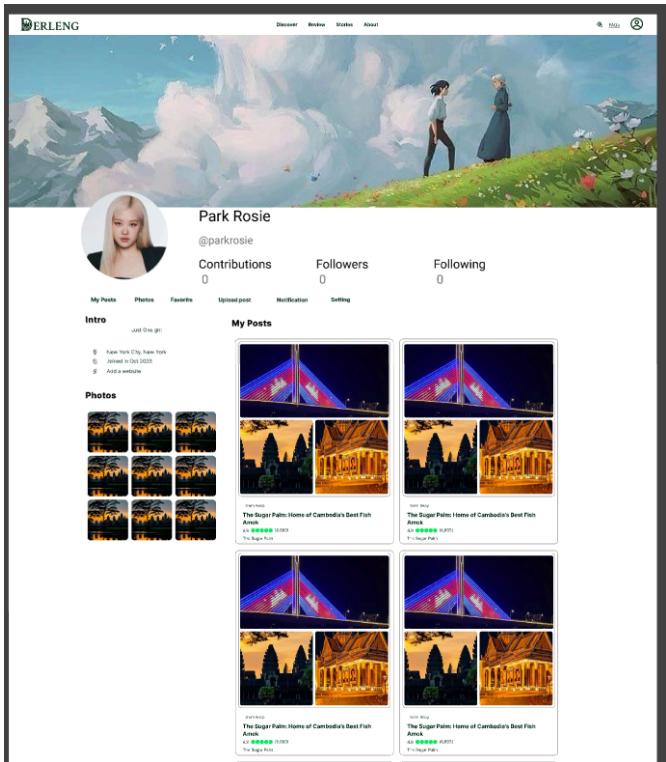
[Privacy and Cookies Statement](#) [Cookie consent](#) [Site Map](#) [How this site works](#)

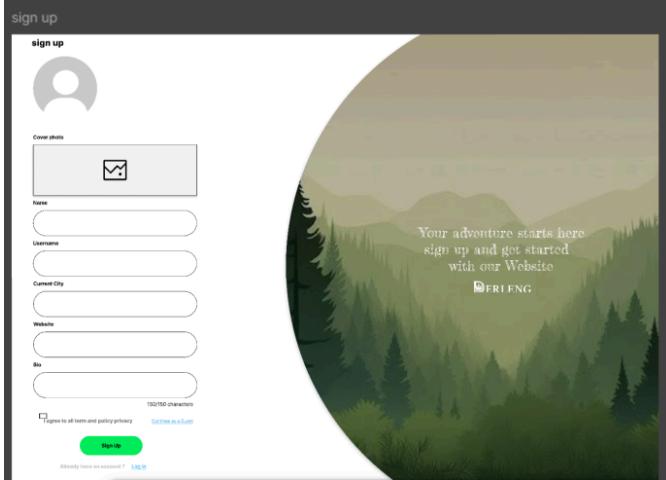
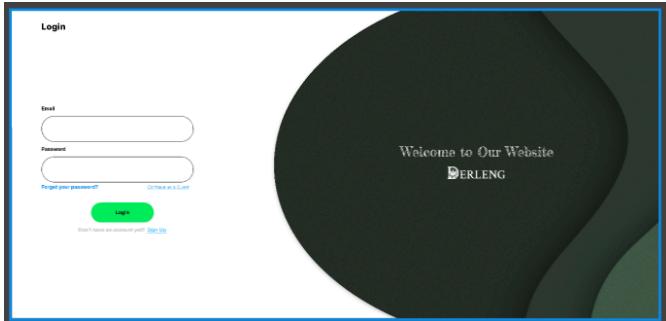
[Blog](#) [FAQ](#)

This is the Cambodian version of Derleng, specifically for those who are business exploring our country. If you are from another country, please direct the appropriate one than Derleng for your area from the other sites.

DERLENG Terms of Use Privacy and Cookies Statement Cookie consent Site Map How this site works

English





The screenshot shows a travel guide marketplace website with a header featuring the logo 'PERLENG' and navigation links for 'Discover', 'Normal', 'Moles', and 'About'. A search bar is present at the top right. The main banner features a scenic view of a traditional building and palm trees at sunset, with the text 'FIND A TOUR GUIDE TO SHOW YOU AROUND'. Below the banner, a sub-section titled 'Top rate tour guide' displays five profiles of tour guides, each with a photo, name (Gretel), title ('Local Guide Cambodia'), price ('\$38/h'), bio ('Travel is the only thing you buy that makes you richer'), rating ('4.5'), and reviews ('128'). The next section, 'Find a local tour guide to show you the area', displays a grid of 16 similar profiles, each showing a different tour guide's photo, name (Gretel), title ('Local Guide Cambodia'), price ('\$38/h'), bio ('Travel is the only thing you buy that makes you richer'), rating ('4.5'), and reviews ('128').