MALAYSIA TRAVEL NAVIGATION WEBSITE

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ABSTRACT

With the continuous improvement of people's living standard, more and more people will choose to travel around the world during their holidays. Traveling to Southeast Asian countries that are warm all year round seems like a good choice. Malaysia is a popular holiday destination. The number of tourists visiting Malaysia has increased in recent years. However, due to cultural differences, language differences, lack of resources and other restrictions, tourists cannot make a good travel plan. It is also possible to Spend too much time and money due to improper planning. While you can choose to join a package tour, a package tour can limit your travel and prevent you from having the freedom to explore the interesting things about the country.

To solve this problem, I plan to design a website about travel navigation in Malaysia. This is the main function of the website. 1. Guidebooks. Automatically recommend destination famous scenic spots. According to the choice of tourists, provide detailed introduction of scenic spots and related tourism services, and provide surrounding accommodation, transportation and other information. This includes pre-trip needs and in-trip needs. 2. Hotel booking. Travelers can book hotels ahead of time on the site, saving time searching for hotels while traveling. 3. Neighborhoods and communities. This feature has a community function. Users can comment on the attractions, restaurants, hotels, or entertainment items they have been to and post them on the corresponding section of the community, providing reference value for tourists who have not been to the community. 4. News module. User can view relevant information published by the Malaysian Immigration Department to make appropriate and timely adjustments to their travel plans. 5. Collection module. In the scenic spot and hotels module, users are allowed to mark it, when the user finds the favorite scenic spots or hotels can collect it, and then in the user center of the collection page can be viewed. It is convenient for users to organize and save time.

1 INTRODUCTION

With improving living standards, more people opt for global travel during holidays. Southeast Asian countries, with their year-round warmth, are appealing choices, and Malaysia is a popular destination. However, cultural and language differences, limited resources, and other constraints hinder tourists from making good travel plans. Joining a tour group may help, but it restricts exploration. A website that assists travelers in arranging and planning their trips would be ideal.

2 PROBLEM STATEMENT

The tourism industry in Malaysia is growing rapidly, but many foreign tourists lack knowledge about local attractions and customs. Language barriers and dialects in some areas also make communication difficult. Tourists often struggle to plan their trips well, leading to wasted time and money. While tour groups are an option, they often have a strong commercial focus, impacting the overall experience. The solution lies in tourism navigation websites, which offer comprehensive information and ongoing support to ensure a better travel experience in exotic places.

3 RESEARCH OBJECTIVE

The site will provide detailed local information based on the traveler's choice of destination. It also provides hotel booking. At the same time, through the community function, travelers can browse posts posted by other users and obtain the evaluation information of local shops. In addition, users can also check the official news of the Malaysian Immigration Department to understand the travel policy and prevent unexpected factors from affecting the smooth progress of the trip.

4 **RESEARCH METHOD**

I choose the Waterfall Model as my software methodology, which is a linear-sequential approach with six phases: requirements, design, implementation, test, deployment, and maintenance. Each phase must be completed before the next one starts, and there is no overlapping. The process flows in a clear sequence, starting with capturing and documenting all requirements. The design phase specifies hardware and system requirements based on the studied specifications. Implementation involves developing small programs called units, which are then tested in the testing phase. After integration testing, the entire system is checked for faults. The product is deployed in the customer environment or released in the market during the installation phase. Any issues that arise are addressed through new patches in the maintenance phase. This method is beneficial for provides management control, and is well-suited for smaller projects with clearly defined requirements.

4.1 PLANNING PHASE

During the planning phase, we set the specification requirements for each requirement in the Malaysia Travel Navigation website. Using the collected requirements as the basis for designing and building the software, they are documented and prioritized to ensure they are aligned with the project goals. Such as non-functional requirements and functional requirements, as well as software and hardware requirements. At the same time, we will

conduct a complete planning of the project development process, including the identification of problem solutions, project objectives, scope, constraints, methods, requirements and milestones. The goal of this phase is to ensure that the project starts and executes smoothly.

4.2 ANALYSIS PHASE

Identify and analyze target users and stakeholders before starting the project, and conduct indepth research and understanding of user needs to ensure the functionality required by users. These requirements are based on user requirements and system requirements. It also includes determining the functional and non-functional requirements of the system. At the same time, all possible requirements for the system to be developed are captured and documented in the requirements specification document. Conduct a feasibility analysis to check whether these requirements are effective. This will help the design and implementation of the system proceed as planned.

4.3 DESIGN PHASE

In the design phase, the detailed results of the requirements analysis will be used to focus on the architecture and module design of the system, which is a key step to ensure the success of the software project. At the same time, the database and development environment are carefully selected to ensure that the software project can be completed with high quality and efficiency, and meet the needs and expectations of users.

4.4 TESTING PHASE

In the test phase, the whole website system needs to be functional tested, including the selection of test objectives, test scope, test requirements, test functions, test methods and identification standards. At this stage, the requirements of the project will be fully tested to ensure the stability and correctness of the system. Identify and solve problems in a timely manner, improve software quality, and ensure user satisfaction.

4.5 OPTIMIZATION AND DEPLOYMENT PHASE

During the optimized deployment phase, we focus on optimizing system performance to enhance the user experience and ensure superior performance in the production environment. The result is a high-performance, highly available system that provides users with a superior experience and reliable service. Once the system is optimized, it is ready to be deployed into production. During deployment, best practices and security standards need to be strictly followed to ensure the security and stability of the system. At the same time, I will regularly maintain and update the site to ensure that the user continues to bring value.

5 **RESEARCH OUTCOME**

The research result of the project will be a unique and fully functional Malaysia tourism navigation website. Through the website, visitors from all over the world can easily browse attractions in various regions of Malaysia, book hotels, view in community forums, post and reply to posts, and obtain official announcements from Tourism Malaysia. This website will provide Malaysia's tourism industry with a convenient, efficient and reliable channel to meet the needs of users and enhance their travel experience.

Figure 1 shows the user's main interface, the top of the navigation bar, below the navigation bar is a classic rotation map of Malaysia, and on the right side of the list shows related news from Tourism Malaysia.



Figure 1 Home page

Figure 2 shows the layout of the attractions interface. On the left side of the navigation bar, you can filter attractions by geographical location, or search by keyword in the search box on the right side of the interface, and the card below shows the image and name of the corresponding attraction.



Figure 2 Scenic spot page

Figure 3 shows the detailed interface of the scenic spot, the list on the left shows the basic information of the scenic spot, the picture of the scenic spot is attached to the right side, and the text box below contains three parts of information, respectively, how to get there, details and comments.

ID: 1681091306515 Types of scenic spots: West Scenic spot address: Genting SkyWorlds Theme Park Price/person: 39 Flow heat: 452 like: 155 dislike: 17 the first field of the south is the first major brand of tourism in Malaysia; There are many recreated How to get Scenic spot details Comment Scenting SkyWorlds Theme Park Known as the "Monte Carlo of the South", Genting Plateau is the first major brand of tourism in Malaysia; There are many recreated	ID: 1681091306515 Types of scenic spots: West	
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Figure 3 scenic spot detail page

Figure 4 shows the list of comments.

How to get	Scenic spot details	Comment
Comment	Comment content	
۲	user1 Comment: nice place	Submit 2023-07-20 14:25:27
	F	igure 4 scenic spot detail comment page

Figure 5 shows the hotel information interface, which has the same layout function as the attraction interface.

	Room type Twin room Dou	ible room Single room			
	Hotel				
				Name of hotel	Name Q Search
	Double room	A state of the sta	文文》希前 Twin room		
	The Westin Kuala Lumpur	Traders Hotel, Kuala Lumpur	Grand Hyatt Kual	a Lumpur Mar	ndarin Oriental, Kuala Lumpur
C				ran e Horti Belleaire	
		Twin room JW Marriott Hotels Kuala Lumpur	Sin Shar	igle room Igri-La Hotel, Kuala Lumpur	

Figure 5 hotel page

Figure 6 shows the details of the hotel, including the address, introduction as well as pictures and reviews.

Home / The Westin Kuala Lumpur	*
The Westin Kuala Lumpur	
Room type: Double room	
Price/day: 650	
199, Jalan Bukit Bintang, 55100 Kuala Hotel address: Lumpur, Malaysia	
Flow heat: 452	
like: 448	
dislike: 1	
位 (448) (口) (1)	
[Book now
Hotel Details Comment	
Spacious and luxurious, with comfortable beds, upscale amenities	s, suite with separate living room and beautiful marble bathroom!

Figure 6 hotel detail page

Figure 7 shows the hotel booking pop-up window, you can select the booking time and booking days.

	Home / The Westin Kuala Lumpur	(\bigstar)
	The Westin Kuala Lumpur	
	Hotel booking	×
U	Booking time 🕓 2023-07-20 17:52:31	
	Booking days	
	Q 1	
	Cancel	Submit
	Book now	

Figure 7 hotel booking page

Figure 8 shows the community interface, showing posts made by other users, and a button in the upper right corner that allows users to make their own posts.

	COMMUNITY	
		+ Publish a post
What should I pay attention to	Author: user3 (User)	2023-04-10 09:48:26
A few things you must bring wh	Author: user2 (User)	2023-04-10 09:48:26
What should I pay attention to	Author: user1 (User)	2023-04-10 09:48:26 💼
Recommended Shopping list in M	Author: user2 (User)	2023-04-10 09:48:26
Take stock of the must-see att	Author: user3 (User)	2023-04-10 09:48:26
Malaysia Travel Tips	Author: user2 (User)	2023-04-10 09:48:26
Previous 1 Next		

Figure 8 community page

Figure 9 shows the details of the post and reader comments.

A few things you must bring when traveling

Author: user2 Identity: User Time: 2023-04-10 09:48:26

1. Sunscreen: It is best to buy domestic or go to Guangzhou airport tax free shop to buy in advance to buy good there basically did not see the sale of sunscreen (may be because not carefully shopping it, but it is still strongly recommended to buy in advance)

2. Collagen drink adhere to the blackening of the holiday places are very high temperature Sabah temperature is basically around 28-32 degrees, so the antioxidant and post-sun repair work should be done this time to go to the amount of 2 bottles a day did not tan but white a little happy

3. Umbrellas will rain from time to time, and sometimes the sun is quite big, be sure to bring sunscreen clothes or something, if you can bring it

4. Switch plugs at home and abroad their jacks are not the same without this = dare not play mobile phone = basically lose contact series

5. For people like me who like to take photos, the mobile phone will be out of power at any time because of taking photos, so the charging treasure must be brought because there is no shared charging treasure abroad, so bring one

These must bring other clothes these will arrange their own beautiful vacation beautiful back

Comm	ent list			
	User: user1			Delete
	good			
Comment content:		good		
			Add	a comment

Figure 9 community detail page

Figure 10 shows the main interface of the news section, which functions like the hotel layout.



Figure 10 news page



es missions in several major cities, including Dhaka, Chattogram and Sylhet in Bangladesh from 21 to 25 May 2023.

The Malavsian delegation led by Mr Hafiz Hazin. Deputy Director International Promotions Division (Asia & Africa), comprises travel trade p artners consisting of tour operators, travel agents, hoteliers, airlines as well as tour and activity providers, including representatives from M alaysia Healthcare Travel Council (MHTC) and Education Malaysia Global Services (EMGS)

Figure 11 news detail page

Figure 12 shows the information in the user center, where users can change information, change passwords, and log out.

USER CENTER	Account	a1		
	number			
User center	User name	user1		
 Scenic spots collection 				
Hotel collection		and a		
Hotel booking		▲Upload picture		
	Gender	man ^		
	Phone number	woman		
		man		
	Email	1027019211@qq.com		
		Update	Change pässword	Log out

Figure 12 user center page

Figure 13 shows a list of scenic spots that the user has collected.



Figure 13 user center scenic spot collection page

Figure 14 shows a list of hotels in the user's collection.

lotel collection		∞∞∞ 希岸酒店
User center		
 Scenic spots collection 	a kan kan kan	
Hotel collection		
Hotel booking	Double room	Twin room
	The Westin Kuala Lumpur	Grand Hyatt Kuala Lumpu

Figure 14 user center hotel collection page

USER CENTER Room Booking Hotel address Hotel name Hotel picture Booking time type User center 12, Jalan Pinang, Kuala Lumpur City Centre, 50450 Kuala Lumpur, 2023-07-18 21:05:22 Grand Hyatt Twin Kuala Lumpur Scenic spots collection room Malaysia Hotel collection Previous 1 Next

Figure 15 shows the user's hotel booking information.

Figure 15 user center hotel booking page

Figure 16 shows the information about scenic spots that administrators can modify, delete and view..

Home	HomeTourist attractions												
Personal Center	Name	of the a	ittraction Q	Name of the a	Itraction	Type of attraction	Type of attraction Please select the type of att -> Induire Q						
Admin							+ New	v 🖻 De	ilete				
User													
Scenic spots		ind ex	Attraction number	Name of the attra ction ‡	Type of a ttraction	Pictures of attractions	Attractio n addres	Price/per son ‡	heat ¢	support ¢	step on ‡	Schedule route ¢	operate
Scenic spots						-							
Comment Collection		1	168109130 6472	Semporn a	East	tuinin a	Kapalai Isl and	30	387	363	12	Because t h	El detail 2, revise
Hotel			168109130	Semporn		the	Tun Sakar an Marin					There are	🗐 detail 🖉 revise
Hotel booking		2	6478	a	East		e Park, Se mporna, Sabah.	80	580	220	29		🔒 Delete
Basic data						1 A A							
Community		3	168109130 6509	Kuala Lu mpur	West		Petronas Twin Tow ers	80	397	165	21	From the a	detat
News													

Figure 16 Admin scenic spot information page

Figure 17 shows the information of the hotel, which the administrator can modify, delete and view.

		×										
Personal Center	Hotel	name	Q Hotel name		Room type	Please select a room type	< Inquir	e Q				
Admin							+ New	1 Delete				
User												
Scenic spots		ind ex	Hotel name ≎	Room type	Price/day	Hotel pictures \ddagger	Hotel addr ess ‡	heat ‡	support ‡	step on $\ensuremath{\hat{\varsigma}}$	Frozen stat	operate
Hotel							Kuala Lum pur City Ce					
Hotel information		1	riental, Kual a Lumpur	Double roo m	500		ntre, 50088 Kuala Lum	128	458	169	normal	10 Delete
Comment							pur, Malays ia					
Collection			Shanori-La			Paratin .	11 Jalan Su Itan Jemail					🖬 defail 🧷 revise
Hotel booking		2	Hotel, Kuala	Single roo m	400		50250 Kual 45 a Lumpur,	436 101	101	normal	1 Delete	
Basic data							Malaysia					
Community			Traders Hot	Single roo		and the second	Kuala Lum pur City Ce ntre, 50088			200		🗈 detail 🛛 🛆 revise
News		5	er, Kuala Lu mpur	m	000		Kuala Lum pur, Malays ia	523	211	239	normal	1 Delete
Bisture V												

Figure 17 Admin hotel information page

Figure 18 shows information about news that can be uploaded, modified, and deleted by administrators.

Personal Center	Annou	ncemer	at title 🔾 Announcement title	Announcement type Please set	act an announcer 🖂 🗌 Inquire C	2	
Admin					+ New 🗈 Detete		
User							
Scenic spots		ind ex	Announcement title ‡	Announcement type 🗘	Announcement image	Announcement time $\hat{\varphi}$	operate
Hotel		1	MOTAC HOSTS RAMADAN' S IFTAR EVENING WITH FOREIGN DIPLOMAT	professional matters	and a first	2023-07-18 20:07:05	🗉 detail 🧳 revise
Hotel booking			S IN MALAYSIA				Delete
Basic data		2	TOURISM MALAYSIA HAS STEPPED	important matters	11 20%	2023-07-18 20:04:45	🗉 debail 🖉 revise
Community		L	NGLADESH	important matters		2023 07 10 200440	Delete
News		3	TOURISM MALAYSIA LAUNCHES DU RIAN TOURISM PACKAGE 2023	Statutory matters		2023-07-18 20:00:59	detail 2 revse
Picture					and the second second		

Figure 18 Admin news information page

6 CONCLUSION

Overall, the Malaysia Travel navigation website has been developed. It provides convenient tourist information and navigation services, making it easier for visitors to plan their trips and explore attractions. A clear and simple interface attracts more users, while online booking and social features increase convenience and interactivity. Future improvements include mobile phone support with multiple languages, continuous technical updates and data analysis to optimize the website. These efforts will contribute positively to the Malaysia Travel Navigation website and attract more users to join.

7 **REFERENCE**

- SDLC Waterfall Model (no date) Tutorials Point. Available at: https://www.tutorialspoint.com/sdlc/sdlc_waterfall_model.htm (Accessed: January 16, 2023).
- Mobile apps for Tourism Industry: Trends and influences (2022) Rishabh Software. Available at: https://www.rishabhsoft.com/blog/mobile-app-development-for-thetourism-industry (Accessed: January 16, 2023).
- *Travel app development: Types, features, & projections* (no date) *Crowdbotics*. Available at: https://www.crowdbotics.com/blog/travel-app-development-types-features-projections (Accessed: January 16, 2023).
- Fox, L. (2017) Fliggy, the Online Travel Platform You (probably) haven't heard of, PhocusWire. PhocusWire. Available at: https://www.phocuswire.com/Fliggy-theonline-travel-platform-you-probably-havent-heard-of (Accessed: January 16, 2023).

- Rome, P. (no date) *What are non functional requirements with examples, Perforce Software.* Available at: https://www.perforce.com/blog/alm/what-are-non-functional-requirements-examples (Accessed: January 16, 2023).
- Baeldung (2021) *Layered architecture*, *Baeldung on Computer Science*. Available at: https://www.baeldung.com/cs/layered-architecture (Accessed: January 16, 2023).
- Solution, W.T. (2022) A guide to choosing a laptop for web development [2022], WeeTech Solution Pvt Ltd. Available at: https://www.weetechsolution.com/blog/how-to-choose-a-laptop-for-web-development (Accessed: January 16, 2023).
- Ashtari, H. (2022) What is network topology? definition, types with diagrams, and selection best practices for 2022, Network Topology Diagrams and Selection Best Practices for 2022. Available at: https://www.spiceworks.com/tech/networking/articles/what-isnetwork-topology (Accessed: January 16, 2023).
- Standardization (2021) AcqNotes. Available at: https://acqnotes.com/acqnote/careerfields/standardization-systems-engineering (Accessed: January 16, 2023).
- Editor (2020) Non-functional requirements: Examples, types, how to approach, AltexSoft. AltexSoft. Available at: https://www.altexsoft.com/blog/non-functional-requirements (Accessed: January 16, 2023).

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