INFORMATION SYSTEM DESIGN OF TOURIST ATTRACTIONS IN THE WORLD

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Abstract. This research was conducted with the aim of designing and building a tourist information system that can present and provide information on tourist attractions and culture in the world. The background of this research was raised based on the need for an information system that can provide complete information quickly and accurately, because the delivery of information on tourist attractions in the world today still uses brochures, in other words delivery like this. information is not effective enough and has not been implemented enough to attract tourists to visit tourist attractions in the world. And with this information system it can also make it easier for tourism and local culture to manage information on tourist attractions and culture in that place. This study uses the SDLC (System Development Life Cycle) method which consists of several stages, namely planning, analysis, design, implementation and maintenance of the system. So that it can be used easily by users to get the information services they need.

Keywords. Masi system, Tourist Attractions Around the World, SDLC method

INTRODUCTION

At this time the development of the world of technology has developed very rapidly and quickly by bringing enormous changes because it makes the information obtained available quickly, easily, accurately and is not limited by place and time. In addition, with the existence of technology, it can facilitate human work carried out by someone to be more effective and efficient. One example of developments in the world of technology is internet technology. The existence of internet technology makes the dissemination of information more practical and easily accessible anywhere, anytime, and anyone can access that information. By simply utilizing internet technology, one can easily find all the information he needs. Not only that, this internet technology can also save time, place and cost. Internet technology does not only affect the development of business or trade, but also affects the tourism sector. Because with the existence of internet technology, the delivery of information on tourist objects can be more connected or interactive and the information is easy to obtain (Tangga, R., & Reynolds, G. 2020).

Along with the development of economic progress and people's welfare, so that the desire to take a vacation is also increasing, information is needed about attractive tourist destinations, transportation facilities, and so on. But often visitors or tourists experience problems and difficulties in obtaining this information. Therefore, an information system in the field of tourism is created which is used to access tourist attractions in the world. Apart from being a medium for conveying information, this information system can also create a form of promotion, besides that with this information system tourist attractions in the world will be better known by everyone in this world (Bolung, M., & Tampangela, HRK 2017).

In designing information systems for tourist attractions in the world, there are
several aspects that need attention, such as data security, technology integration, sustainability, and optimal user interaction. Through integrated and innovative information systems, tourist destinations can increase their attractiveness to global tourists, increase operational efficiency, and strengthen their position in the international tourism market (Yuliani, O., & Prasojo, J. 2015).

The design of this information system presents a set of intricate challenges that necessitate careful consideration and strategic planning. One of the foremost challenges lies in the expansion of regional coverage. The aviation industry spans across diverse regions with distinct infrastructures and regulations. Adapting the system to accommodate these variations while maintaining a unified user experience is a demanding task. Furthermore, the unique characteristics of different travel destinations introduce another layer of complexity. The system must be flexible enough to provide accurate and relevant information for a wide range of destinations, accounting for variations in flight options, local attractions, and cultural nuances.

Cultural diversity also plays a pivotal role in shaping the design of the information system. Travelers from around the world have diverse preferences and expectations when it comes to their flight booking experience. Designing an interface that resonates with users from various cultural backgrounds requires a nuanced understanding of user behavior, preferences, and communication styles. Additionally, the availability and reliability of technological infrastructure present yet another challenge. In some regions, limited access to high-speed internet and advanced devices might hinder the seamless operation of the system. Thus, the design should be mindful of catering to different levels of technological readiness while maintaining a consistent user experience.

While these challenges might seem daunting, they can be effectively addressed through collaboration and judicious technological implementation. Collaborating with stakeholders, including aviation experts, cultural consultants, and local authorities, can help tailor the system to suit the needs of diverse users and destinations. Leveraging technology wisely involves employing responsive design principles that adapt to different devices and connection speeds. Cloud-based solutions and progressive web apps can enhance accessibility even in areas with limited technological infrastructure. By embracing these collaborative and technological approaches, the challenges posed by regional coverage expansion, destination diversity, cultural nuances, and technological availability can be turned into opportunities for creating a comprehensive and user-friendly flight booking information system. (Tangga, R., & Reynolds, G. 2020).

This website stands as a valuable resource to offer users insights into captivating tourist destinations and enhance their travel planning experience. Leveraging web programming, the platform can seamlessly incorporate a multitude of interactive elements to engage users. One such feature could be a sophisticated search function enabling users to filter cities based on specific criteria, such as exploring historical gems or picturesque locales. This functionality empowers travelers to tailor their searches according to their interests, facilitating a personalized exploration experience.

At the programming level, a diverse array of languages and technologies come into play to craft this website. HTML and CSS are two foundational programming languages extensively utilized in web development. HTML forms the structural
backbone of the webpage, defining the content and its layout, while CSS lends style and visual appeal by dictating the presentation aspects. Combining these languages allows for the creation of an aesthetically pleasing and user-friendly interface, essential for engaging users effectively. Alongside these, other languages like JavaScript can be employed to add dynamic behavior and interactivity to the website, ensuring an enriched and seamless user experience.

In conclusion, the significance of this website extends beyond its role as a mere information platform; it emerges as an essential companion for travelers in their journey to discover enchanting holiday destinations. By harnessing the power of web programming languages such as HTML, CSS, and JavaScript, the website is poised to deliver a dynamic user interface that not only offers information but also fosters interaction. This technological synergy cultivates an environment where users can seamlessly explore, plan, and envision their ideal getaways, all while enjoying a visually appealing and responsive interface that caters to their needs.

Ultimately, the harmonious marriage of advanced web programming techniques and a user-focused design philosophy shapes this platform into a gateway of knowledge and inspiration for travelers. With its interactive features and rich content, the website empowers users to transcend conventional travel planning and engage in a holistic exploration of destinations worldwide. Through a combination of technology-driven capabilities and a commitment to user satisfaction, the website emerges as a reliable and resourceful tool, elevating the way individuals plan and experience their dream vacations (Utarki, S., Pratama, EA, & Hellyana, CM 2020).

METHOD

(Bolung, M., & Tampangela, HRK 2017) This section will explain the development cycle for the Design of Information Systems for Tourist Attractions in the World. Software development life cycle (SDLC) System design in this study uses the basic SDLC (System Development Life Cycle) method which consists of several stages, namely planning, analysis, design, implementation and maintenance of the system. System Development Life Cycle (SDLC) is the whole process of building a system through several steps. There are several models commonly used in carrying out the SDLC process, including:

Waterfall Model: The Waterfall Model can be said to be one of the oldest and simplest models in the software development process. In this model, each phase must be completed sequentially, and after one phase is completed, the next phase begins. The weakness of this model lies in its imprecision to deal with the changes that occur during the development cycle. If even one small detail is overlooked, it can impact the overall plan and result in difficulty adjusting changes.

Agile Model: The Agile Model focuses on streamlining the Software Development Life Cycle (SDLC) by eliminating a lot of redundant modeling and documentation. This model emphasizes simple, iterative application development, enabling teams to respond quickly to changing customer needs. However, the downside of this model is the lack of structure which can sometimes cause projects to go astray or fall short of customer expectations if not executed properly.

Iterative Model: This methodology developed in response to weaknesses in the waterfall model, which demanded new methods of systems development. The Iterative Model allows teams to deliver results faster, requires less information, and
offers greater flexibility. However, the drawback of this model is the risk of wasting resources if certain parts need to be worked on repeatedly due to repeated revisions.

V-Shaped Model: The V-Shaped Model is a variation of the waterfall model, where each phase in software development is followed by a corresponding testing phase. This process emphasizes the importance of testing in every stage of development, and testing is even more important than the waterfall model.

Spiral Model: The Spiral Model combines elements of the prototyping model and the linear sequential model. This approach emphasizes risk analysis and accommodates changes that occur during the development cycle. This model focuses on managing risk and ensuring the necessary changes can be integrated effectively. However, this model also requires careful risk management and requires additional costs for in-depth risk analysis.

![Software Development Life Cycle](image)

**Figure 1. Software Development Life Cycle**

In using this Website it can be accessed by everyone (User), in accessing it the User is not required to Login, so that the User can immediately view the contents of the Website. The design of the system is meticulously crafted to align with the principles of the Software Development Life Cycle (SDLC). This comprehensive framework guides the development process from inception to deployment, ensuring that each stage is carefully planned and executed. By adhering to the SDLC, the system design undergoes thorough analysis, design, implementation, testing, and maintenance phases, fostering a robust and well-structured final product. This approach guarantees that the system not only meets users' needs but also adheres to industry best practices and quality standards, ultimately resulting in a reliable and efficient information platform for discovering holiday destinations.

**RESULTS AND DISCUSSION**

The Information System for Tourist Attractions in the World represents a comprehensive design endeavor focused on furnishing users with valuable insights into tourist destinations spanning the globe. With the primary goal of offering convenient and expeditious access to pertinent information, this system is poised to redefine the way users access and engage with details concerning diverse tourist attractions. By collating descriptions, details, and essential data about various destinations, this system seeks to empower users with a robust and user-friendly platform for their travel planning needs.

At its core, the system's architecture centers around optimizing the ease and speed of information retrieval. Users will be able to effortlessly navigate through a
Information System Design of Tourist Attractions in the World

The Information System Design of Tourist Attractions in the World aims to enhance user engagement and satisfaction by providing a streamlined interface for accessing comprehensive descriptions of tourist attractions worldwide. Through this system, users will have the ability to explore a plethora of options quickly, thereby enhancing their decision-making process when selecting destinations for their next adventure.

By amalgamating cutting-edge technology with the thirst for enriching travel experiences, the Information System Design of Tourist Attractions in the World demonstrates its commitment to enhancing user engagement and satisfaction. This design showcases a dedication to bridging the information gap and transforming the way users engage with tourism-related data. Ultimately, the system's aim is to enable individuals to embark on their journeys with well-informed decisions, ensuring that each travel experience is not just an adventure, but an enriching and memorable escapade.

**Need analysis**

This information system is designed to accommodate various users, including tourists who are looking for information about tourist attractions around the world. The tourists can easily access the main features offered by this system. One of the main features provided is Search for Tourist Attractions, which allows users to search for holiday destinations based on a particular name, location or category. Detailed information about tourist attractions is also available in full in this system, including information on history, culture, main tourist attractions that must be visited, and various other interesting things. In addition, this system also provides a flight ticket booking feature that will be connected to one of the service provider sites, so tourists can easily plan their trips from start to finish in a more organized and efficient manner. With complete and informative features, this system is a valuable tool for tourists to better explore and plan their vacations, without the hassles and difficulties of finding the information they need.

**Architectural system**

The development of this tourist information system uses a modern and efficient web-based architecture. This architecture includes several important components, one of which is an interactive and responsive user interface. This interface is designed using HTML and CSS technology, which ensures that the appearance of web pages is attractive and according to user needs. With a responsive interface, this system can be accessed via various devices, such as computers, tablets or smart phones, without sacrificing display quality. Users will experience a smooth and intuitive experience when interacting with the system, making it easier for them to find information about tourist attractions around the world. With a combination of modern technology and attractive interface design,

**User Interface Design**

The system is thoughtfully designed to offer users a seamless and efficient experience in discovering captivating holiday destinations. The main search features take center stage, serving as the starting point for users to embark on their travel planning journey. By prominently showcasing these features, the system empowers users to initiate targeted searches based on their preferences, such as location, interests, or specific activities.

In addition to the main search features, the system strategically presents a selection of popular tourist attractions. These highlights provide users with a curated glimpse into sought-after destinations, offering inspiration and sparking interest. By showcasing these attractions, the system not only streamlines the decision-making process but also enhances user engagement and satisfaction.
process but also offers users a tantalizing preview of the diverse experiences that await them (Yuliani, O., & Prasojo, J. 2015).

To further enhance user engagement, the system offers related recommendations that align with users' chosen preferences and interests. This dynamic feature takes into account users' interactions with the system and intelligently suggests destinations that share similarities with their preferences. By presenting these recommendations, the system offers a personalized touch that tailors the user experience, facilitating discovery and encouraging exploration.

In sum, the system’s thoughtful arrangement of main search features, popular attractions, and related recommendations creates a harmonious user experience. By ensuring quick and easy access to attractive and relevant holiday destinations, the design seeks to empower users with the tools they need to uncover their ideal travel experiences (Sofyan, AA, Puspitorini, P., & Yulianto, MA 2016).

Tourist Attractions Details Page

The system offers a wealth of comprehensive information about various tourist attractions, serving as a digital repository of knowledge for users seeking insights
into their potential destinations. By meticulously curating detailed descriptions and historical backgrounds of each locale, the system ensures that users can glean a holistic understanding of the places they’re interested in exploring. This multifaceted approach aims to satiate users' curiosity and provide them with the context they need to make informed decisions about their travel plans.

Within the system’s interface, users can delve into rich narratives about the tourist attractions they're curious about. Historical anecdotes, cultural significance, and notable landmarks associated with each destination are meticulously compiled, offering users a glimpse into the unique characteristics that make these places special. This holistic approach extends beyond mere practical information, transforming the user experience into an immersive journey through the past, present, and cultural fabric of each locale.

The focus on presenting comprehensive information underscores the system's commitment to empowering users with the knowledge needed to tailor their travel experiences to their interests. By amalgamating detailed descriptions and historical context, the system serves as a valuable tool for travelers seeking not only visual inspiration but also meaningful insights that foster a deeper appreciation for the destinations they choose to explore.

**Discussion**
Designing Information Systems for Tourist Attractions in the World is an interesting and relevant topic in the era of globalization and advances in information technology. This information system aims to provide complete and up-to-date information about various holiday destinations in various countries around the world. The design of this information system involves various aspects, from technology, user interface, to data security, which must be carefully considered to produce an effective and efficient solution.

First of all, the technological and architectural aspects of this information system are crucial. Selection of the right platform and technology will affect the performance and reliability of this system. This information system architecture must be designed so that it can handle large amounts of data and users, and is responsive to access from various devices, such as computers, tablets or smartphones. The use of web technologies such as HTML, CSS, and JavaScript can ensure an attractive and easy-to-use user interface (Lengkong, CM, Sengkey, R., & Sugiarso, BA 2019).

The user interface design stands as a pivotal cornerstone in the creation of this information system. Recognizing that the visual and interactive aspects play a vital role in user engagement, the design places great emphasis on crafting an interface that seamlessly guides users through their travel planning journey. An intuitive and visually appealing interface serves as a welcoming gateway, facilitating effortless exploration of holiday destinations. By combining aesthetics with functionality, the system aims to provide a user-centric experience that not only informs but captivates.

A significant aspect of the user interface design is the integration of sophisticated search features that empower users to narrow down their options effectively. The system endeavors to understand the diverse preferences of its users and presents them with tailored results. Whether users are seeking serene beach getaways, historic landmarks, or bustling city experiences, the interface streamlines the search process, presenting options that align with their desires. Additionally, intuitive navigation ensures that users can effortlessly delve into various categories, refining their search and accessing pertinent information without any hassle.

The ultimate goal of the user interface design is to enhance accessibility, making information about holiday destinations readily available to all users. A user-friendly interface ensures that individuals of varying digital literacy levels can seamlessly interact with the system. By fusing aesthetically pleasing design elements with an intuitive layout, the system strives to foster an engaging experience that encourages users to explore and discover. This cohesive approach seeks to empower users in their quest to find their ideal holiday destination while simultaneously elevating their engagement and satisfaction throughout the journey. Aspects of data security and privacy must also be a major concern in the design of this information system. User data, including personal and sensitive information, must be properly stored and protected from cybersecurity threats. Implementation of security measures such as data encryption and authentication will ensure that user information is safe and kept confidential (Turban, E., Volonino, L., & Wood, GR 2015).

The design of this information system extends beyond its core features to encompass a crucial aspect: seamless integration with external services. Recognizing the interconnected nature of travel planning, the system is strategically engineered to collaborate with other entities like flight ticket and hotel reservation providers. This integration serves as a pivotal bridge, offering users a comprehensive travel planning
experience all within one cohesive platform. By streamlining the coordination of various travel components, users can conveniently arrange their trips with enhanced efficiency and organization.

The integration with external services empowers users to make well-rounded decisions while planning their journeys. Through this interconnected approach, users can seamlessly transition from exploring tourist attractions to booking their flights and accommodations. This streamlined process eliminates the need to navigate multiple platforms, fostering a smoother and more coherent travel planning process. This integrated ecosystem creates a synergy where users can effortlessly weave together various aspects of their trip, optimizing their time and resources.

The design’s emphasis on integration epitomizes the system's commitment to providing users with a holistic and hassle-free travel planning experience. By weaving together diverse components of the travel industry, the system ensures that users are equipped with the tools to craft a comprehensive itinerary that caters to their preferences and needs. This strategic alignment between information and service providers reinforces the system's role as a reliable and efficient travel companion, simplifying the intricacies of travel planning and enabling users to embark on memorable journeys with ease. Challenges and obstacles in the design of this information system also need to be dealt with wisely. Differences in language, culture and regulations in different countries can be a challenge in collecting and presenting information about tourist attractions. However, with collaboration and careful planning, these challenges can be overcome properly.

The design of Information Systems for Tourist Attractions in the World has great potential to improve the tourism industry globally. By presenting accurate, complete and up-to-date information, this system will become a valuable resource for travelers from all over the world in planning unforgettable vacation trips. In addition, this information system can also support tourist attraction managers in increasing the attractiveness of their destinations and expanding the scope of the international tourism market. Through careful and innovative design, this information system will provide optimal benefits for stakeholders in the global tourism industry.

CONCLUSION

Provides complete information about various attractive holiday destinations in various countries. With the diversity of destinations displayed, this website is able to meet the vacation needs of various types of tourists, from families, couples, to backpackers. Accurate and reliable information about locations, tourist attractions, accommodations, as well as recommendations for interesting activities, allows users to easily plan trips according to their preferences and budget. In addition, easy access and an intuitive interface make this website user-friendly, so that anyone can comfortably browse holiday destination pages around the world. With complete features and the latest information.

REFERENCE


