

UI/UX Design of Online Tickets for Situ Pasir Maung Tourism in Dago Village Using the Figma Application

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Abstract: has several interesting tours, one of which is Situ Pasir Maung, a place in the form of a natural tourism park located in Dago Village, Parung Panjang District, Bogor Regency. However, ticket purchases can only be made by buying directly on the spot when entering the tourist spot. This can make it difficult to order tickets due to the large number of visitors. So here a design for an e-ticket application will be made using the design thinking method to analyze and design a mobile application for online ticket ordering at Dago Tourism. In this design the editing software used is Figma, and in this study will only make UI/UX designs related to online ticket purchases. UI/UX design of the Design Thinking method for Situ Pasir. The Maung tourist ticket application was created and a prototype of the application was tested by sending a questionnaire to 20 respondents with an average score of 4.021 and most of the responses from potential users said that the tour ticket prototype was easy to understand and use. So here we will try to make an e-ticket application design. E-tickets can make it easier for buyers or visitors to get them because there is no need to come directly to tourist attractions. Ticket purchases can be made through easy-to-use online ordering .

Keywords: Online Tickets; Design Thinking; picture; UI/UX; Prototype

INTRODUCTION

A tourist destination is a place that is a tourist attraction that visitors can enjoy while on vacation with friends and family. There are already many tourist objects that are currently offered in various regions and even countries. one of them is a tour located in Bogor district, West Java, to be precise in the village of Dago Parung Panjang (Hanif, 2018) . Tourism potential is a resource that has various places that can be an attraction that is used for economic interests by taking into account other aspects (Purnama et al., 2018) .

Dago Village has several interesting tours, one of which is the Situ Pasir Maung tour, a place in the form of a nature tourism park that has a playground and a place where children to adults can have fun enjoying their holidays accompanied by a very shady place. suitable for just relaxing or taking pictures together. However, ticket purchases can only be made by buying directly on the spot when entering the tourist spot. This can make it difficult to order tickets due to the large number of visitors.

With the increasing breadth of the internet network today, it can facilitate human activities, especially those related to the process of ordering and buying tourist tickets. The current ticket buying process has changed from buying tickets in physical form to buying tickets online (Purwitasari et al., 2021) . Internet use can be done anywhere and anytime quickly, efficiently and effectively. Now here

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we will try to make an e-ticket application design. E-tickets can make it easier for buyers or visitors to get them because they don't need to come directly to tourist attractions. Ticket purchases can be made through an easy-to-use online booking (A Lazarusli & R Mitra, 2018) . By making this application it is hoped that it can solve this problem properly. This application will be designed by making designs using the design thinking method which will make it easier for tourist visitors to buy tickets.

Design Thinking Design Thinking is a methodology used to find problem solutions through a collaborative process with users, creating innovative services that meet user needs and solve their problems (Hussein Sabil, 2018) .

Developing applications is very important in designing UI/UX to describe ideas and points of view from users. The first discussion was conducted with the design team incorporating every creative idea from everyone. After that to find out the end result will be implemented in the prototype. From the finished results, trials will be carried out on users and will receive input to correct deficiencies in the application (Digital, nd) .

LITERATURE REVIEW

Tour

Tourism is a voluntary and temporary travel activity to enjoy the uniqueness and beauty of nature. Activities in nature tourism are closely related to nature itself. Tourism is one of the most important things for a country. In the field of tourism, a country or more precisely the regional government where the tourist attraction is located earns income from the income of each of these tourist objects (Devy, 2017) .

Currently tourism is growing rapidly with various types of choices including special interest tours. Special interest tourism is a form of travel where tourists visit a place because they have a particular interest in objects or activities in tourist destinations. Tourists who usually travel for special purposes do so for various reasons including respect for nature, cultural knowledge, history, environment, customs and traditions that have developed. A tourism village is a village that is developed by utilizing the elements or potential that exist in the village and its people as a tourism product or attribute, so that the series of tours becomes integrated and thematic (Rahmatillah et al., 2019) . In this case, one of the cities that has the potential to be developed as a tourist city is Dago village natural tourism. In the future tourism is very promising to make an important contribution to regional development.

UI (User Interface)

User Interface (UI) or user interface is the science of graphic design of a web or application. The scope of the user interface includes the buttons the user clicks, text, images, text entry fields, and anything else the user interacts with. Including layouts, animations, transitions, and all the little interactions. The user interface designs all the visual elements, how the user interacts with the website and what is displayed on the website. The visual elements *handled by UI designers* are color schemes, defining button shapes, and specifying fonts to use for text. *UI designers* must be able to create a good look and feel so as to increase user loyalty (Muhyidin et al., 2020) .

UX (User Experience)

User Experience (UX) is a process that allows users to interact with the user interface in a good and comfortable way. This term was created to describe a person's experience using an app or website. whether they found it useful or difficult, frustrated with the menu layout, confused with the buttons, or just happy with the experience. User experience leads to psychological factors. but the keyword is in the user interface. If *the UI* is good, the user experience is also expected to be good (Kelly et al., 2022) . In the designer and app developer community, user experience is often shortened to *UX* . The most important thing here, the goal of *UX* is to increase user satisfaction when accessing a screen, whether from a website, mobile device or desktop. *The UX* itself becomes the link between the user and the product (Digital, nd) .

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Design Thinking

Design Thinking is an iterative process in which we try to understand the user, challenge assumptions and redefine the problem to identify alternative strategies and solutions that may not be immediately apparent on our initial understanding. Understand. At the same time, design thinking offers a solution-oriented approach to solving problems. This is a way of thinking and working as well as a collection of direct methods (PRASETYO, 2022) .

Figma

Figma is a graphic design application for designing prototypes and user interfaces for digital products such as smartphone applications or websites. Figma has added value that can help complete the prototyping process and user interface, including a concise application, only equipped with special tools for designing prototypes or user interfaces, so it does not require a sophisticated computer, has an animation function around to visualize menu movements, buttons, home screens, etc. has features to determine the flow and interaction that application users see when menus, buttons or icons are clicked and presentation features so that designs created can be displayed in front of team members as out-of-the-box applications. The figma support community is huge. You can get tons of plugins, templates and supporting themes quickly and for free to make your own prototypes (Digital, nd) .

METHOD

The research method used in designing the Situ Pasir Maung Tourism online ticket application is the design thinking method. The first stage begins with a literature study, then information is collected through interviews, questionnaires and observation. Needs analysis is then carried out using the results of information gathering, formulation of solution ideas, and the realization of prototype designs.

Research Stages

At the research stage, the authors used the design thinking method to analyze and design a mobile application for ordering online tickets at Wisata Dago. The following are the stages of the design thinking methodology in building the application design in this study.



Figure 1. Stages of Design Thinking

1. Empathize

In this empathy phase is a phase to directly understand the problems faced by users. At this stage the research collects information by conducting interviews with target users and distributing questionnaires through Google forms to obtain information that cannot be obtained through interviews and obtain solutions to existing problems.

2. define

After getting the results from the interview process and getting data from the questionnaire conducted in the empathy phase, you can begin to determine the focus of the problems you are experiencing and identify the main problems that exist. In this phase, the author receives information to design a system in terms of features, functions and elements that can solve existing problems.

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3. Idea

the phase of gathering ideas from surveyed users to help implement a valuable ticket and adhere to design thinking principles. After the ideas are mapped out in the ideate phase, the writer analyzes the existing ideas and relates them to the needs and problems of the users. After the idea phase, designers move from identifying problems to developing solutions for users. In the early stages of design, brainstorming is about generating the widest possible range of ideas from which the best solution can be chosen. The best solution will later be found at the testing stage through user feedback, after collecting the resulting ideas, then selecting the two or three best options and taken to the next stage, namely the prototyping stage.

4. Prototype

In this fourth stage, a prototype system design is carried out. This step allows the designer to create something new and exciting that is formed in the idea phase. The Prototype Stage, where application sketches are made in the form of sketches, digital models or mockups, and other forms. In this phase, the ideas and designs that have been made will also be tested. At this stage, you also get several advantages, namely getting an idea of how users will use the application being developed, finding problems with the design and function of the application, and more easily knowing which design is successful, correct and easy.

5. Test

The last phase is the trial or testing phase. In this process you will find and see the target users of this application interact with the designed prototype. These stages also provide you with feedback that can be used to improve the performance of the app you're building. This phase is especially useful for detecting bugs and usability issues. This phase does not mean that the design thinking method is always the end, because there is a possibility that during testing new problems will be found that were not detected before, so it is necessary to repeat the previous phase and solve new problems. Therefore, it must continue testing to resolve the reported issues and develop the product as expected. therefore, whenever a product is released to the public, it will meet the expectations of users and there will be no errors.

Data analysis

1. Research

In the early stages of research, the authors conducted research in which empathy was carried out. The empathy process is carried out to find out what the user thinks, says, feels and does. The empathy process consists of observation, questionnaires and empathy maps.

2. Observation

The author first made observations of these problems to find out what problems were experienced by those involved in Dago Tourism. The following is the observation process carried out by the author:

- a. The author finds problems related to planning tourists who want to travel to Dago Village. This is due to the absence of an online reservation system, so visitors must confirm directly with the local party and some potential visitors object to the manual process as is currently happening at Dago Tourism.
- b. The facilities offered by tourism in Dago Village are not displayed properly because there are no means of communication so that potential tourists do not know what activities are carried out during the tour.

3. a list of questions

In the process of distributing the questionnaires, the authors designed a *Research Project Plan* which aims to clarify the objectives of the questionnaires and the results of the questionnaires that are most useful in the process of developing solutions to existing problems. The following is *the Research Project Plan* that the author uses when distributing the questionnaires.

*name of corresponding author



a. Objective

The purpose of this study is to find out how stakeholders manage Dago Village Tour tickets and visitors when buying tickets online. So writers need to understand this to know which features are most suitable for users to be relevant and useful.

b. Respondents

Respondents in this study were stakeholders involved in Dago Village tourism activities. In addition, the respondents in this study visited Dago Tourism. This is to find out their perspectives and anxieties when traveling in Dago Village Tourism.

RESULTS

Empathize

At this stage empathy is about directly understanding the problems faced by users. In this study, several methods were used to collect data to find out what users needed, namely by distributing questionnaires using the Google form to obtain information that could not be obtained through interviews.

a. Empathy Map

Empathy Map is a process of gathering information for design requirements with a user-centered approach that focuses on understanding others by seeing the world through users. After the user observation process, an empathy map can be created to identify the needs of each user. Here is an empathy map created based on user observations.

1. Tourism Manager – Uam

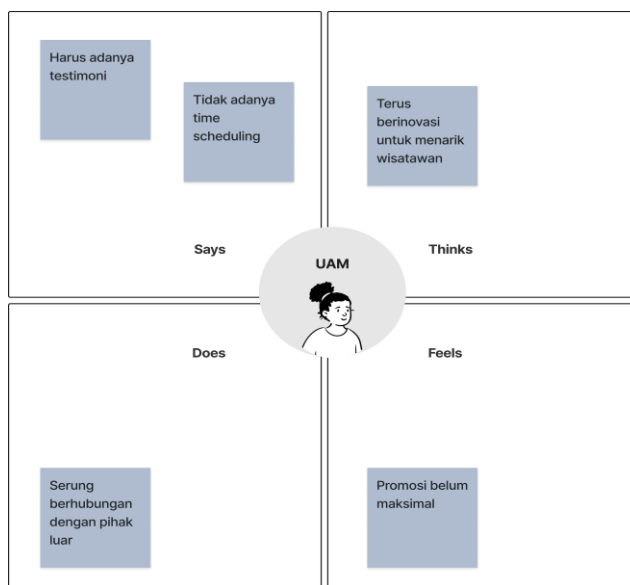


Figure 2. Uam Tourism Manager *Empathy Map*

the map shows potential tourists needing online booking facilities, which according to him affects potential tourists who travel to Situ Pasir Maung.

define

The information gathering stage is taken from the empathize process by analyzing observations and then processing them to find the core of the identified problem. This phase helps UI/UX designers to brainstorm ideas to create features, functions, and elements that allow users to solve problems. Each of these sections is obtained from the user's empathy map in the previous process. The following is the information gathering stage taken from the empathy process.

*name of corresponding author

a. Persona

In the next stage, collecting data through interviews. This interview was conducted by 3 people with different characteristics. Personas are very useful for mapping out problems and making it easy for writers to translate user requests. Persona also allows authors to find out what features users need and can be a solution to their problems. The following are the results of interviews with each persona:

1. Stekholder – Uam

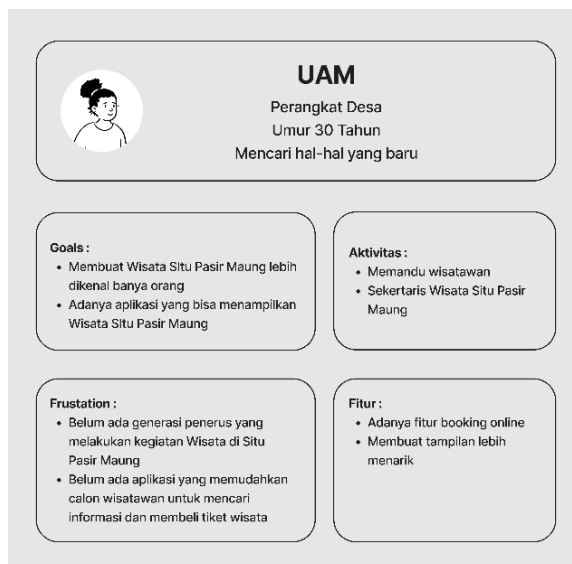


Figure 3. Uam User Persona

Idea

The next process is the ideate phase to find solutions to existing problems. The research being analyzed is that at the time of searching, the most important thing is that efforts are made to summarize the flow of searching and ordering entrance tickets in order to maintain practicality and convenience for users in carrying out transaction processes. The flow that users go through in the travel ticket application can be seen in the following user flow chart.

a. User Flow

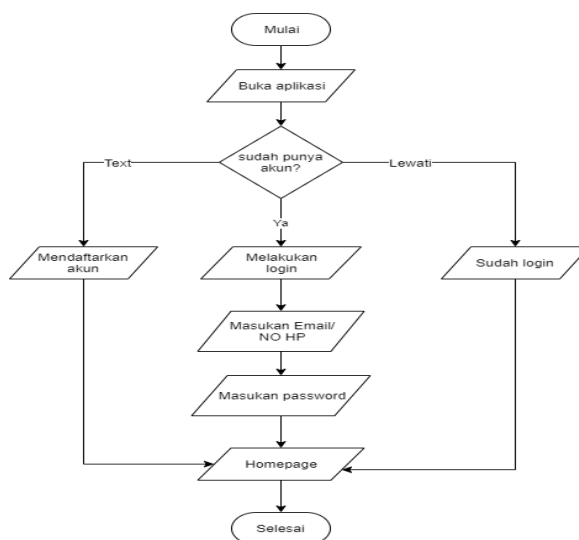


Figure 4. User Authentication Flowchart

*name of corresponding author



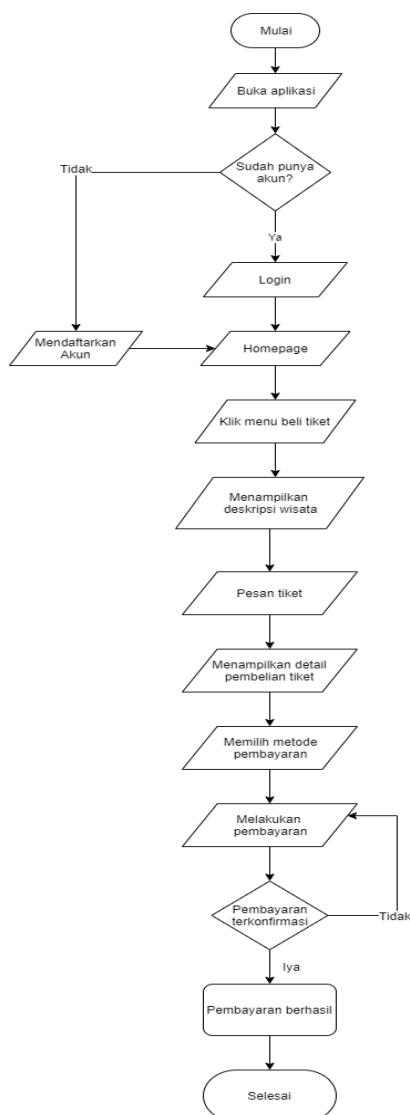


Figure 5. Ticket Purchase User Flowchart

b. Wireframes

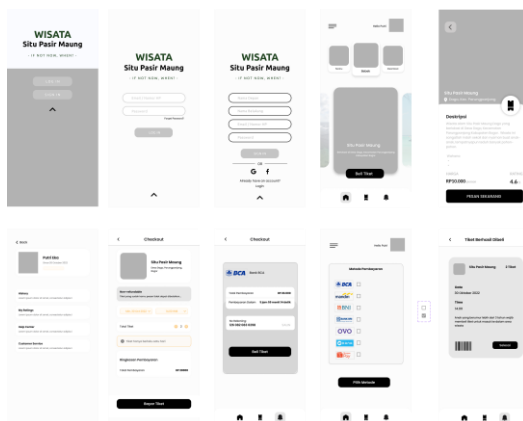


Figure 6. Online Travel Ticket Wireframe

*name of corresponding author



c. UI design

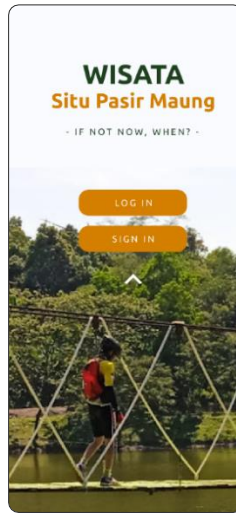


Figure 7. Display of the Start Page



Figure 8. Login Display

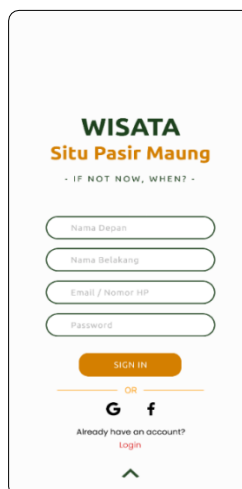


Figure 9. Registration Display

*name of corresponding author



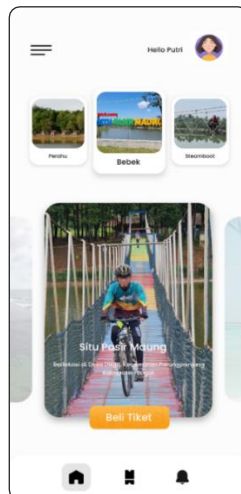


Figure 10. Main Page Display



Figure 11. Tourism Description Display

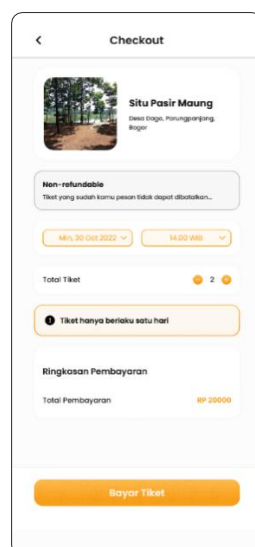
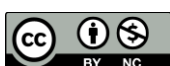


Figure 12. Display of the Ticket Details Page

*name of corresponding author



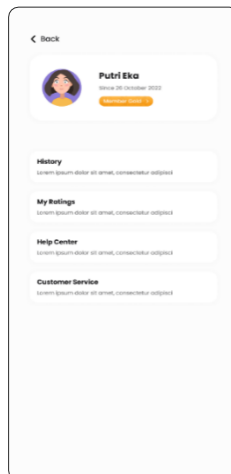


Figure 13. View of the Account Page

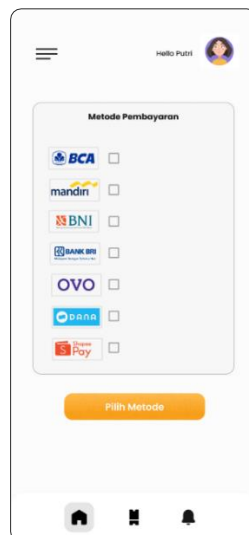


Figure 14. Display of the Payment Method Page

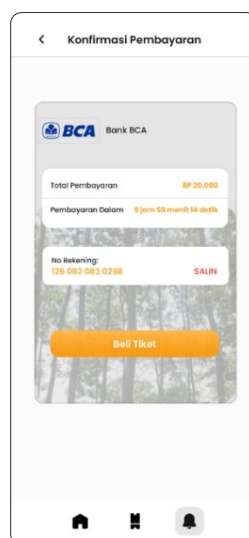


Figure 15. Display of the Payment Confirmation Page

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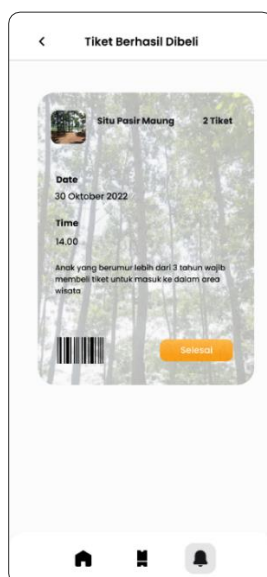


Figure 16. Display of Successful Ticket Page

d. Testing

Testing is done by asking questions through the Google form. The following is a table of results from the Situ Pasir Maung Tourism Ticket Questionnaire.

Table 1. *Prototype Questionnaire Test Results*

Question	Average
This application can help book travel tickets more effectively.	4,8
This application is very useful for booking travel tickets.	4.75
This application saves more time, because it can be used anytime and anywhere.	4,8
I feel interested in the appearance of this travel ticket application	4,6
This app has a nice layout color design	4,1
In my opinion, the features in this travel ticket application are good	4.05
I think the icons and fonts used in this app are consistent	4,25
Easy to use and easy to use.	4,9
Easy to use	4,8
It doesn't take long to buy tour tickets	4.65
This travel ticket application can be used without a written guide.	4.05
I think this app will be fun and comfortable to use.	4.75
It's easy to remember how to use it.	4,3
I find this app confusing	1.85
In my opinion, there will be difficulties in using this tourist ticket application	1.95
I can see detailed tourist information on the app.	4,8
I can choose a payment method in the travel app	4,8
The appearance of this application design is attractive and modern	4.85
I feel this app is not easy to understand	1.65
Total	78.7
Average	4,021

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The results of responses to the Situ Pasir Maung Tourism online ticket questionnaire by submitting 19 questions and answers from 20 respondents, and each assessment choice ranges from 1 to 5 for each question, namely the answers Strongly Disagree, Disagree, Normal, Agree, and Strong Agree. In Table 1 above it is known that the Overall Score is 78.7 and the Average is 4.021 obtained from 20 respondents. This average score shows that tourists prefer to order travel tickets online and the prototype design made by the author meets the standard needs of the user or users.

CONCLUSION

In UI/UX development, the Situ Pasir Maung tourist ticket application uses Design Thinking which is based on seeing the discomfort of people who want to buy tickets for a vacation to Dago Village. Therefore, the Situ Pasir Maung tourist ticket application is here to make ticket requests online. This research is stated to be able to produce designs for user interfaces that suit the needs of online ticket application users using the Design Thinking approach method. There are several stages in the design thinking approach, namely empathize (observation and interview), define (discussion), ideate (discussion and brainstorming), prototype (userflow, low-fidelity design, high-fidelity design, prototyping) and up to the testing stage. By using design thinking in planning, it is hoped that you will have satisfaction and good experience (User Experience).

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