

## Design And Construction Of Jombang District Tourism Variety Information Operation System Based On Website Fream Work Codeigniter 3

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### ABSTRACT

*Tourism is a prospective industry in the future that requires an efficient system for providing information about tourist destinations. Jombang Regency has tourism potential that needs to be better known by the public. To improve the development of the tourism sector there, I developed a website as a tourism information system. This system considers distance, level of visits, and ratings in choosing tourist destinations. It is hoped that this system can improve the quality of service to tourists and attract their interest in visiting.*

**Keywords:** *Information Systems, Tourism, Jombang Regency, Website, CodeIgniter 3*

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### INTRODUCTION

Humans cannot be separated from travel activities, because these activities can relieve fatigue and mental burdens. Tourism, as mentioned by Pareira & Santoso (2013), is an industry that is prospective in the future in terms of social activities. People need to take time to rest and enjoy holidays, which in turn can also fulfill people's material needs. To achieve this, an efficient system is needed to provide and disseminate information about tourist destinations. A system like this can help the tourism sector and enable tourists to obtain information and make decisions on selecting tourist attractions effectively and efficiently, as stated by Purnomo (2013).

In this context, research was conducted to examine the tourism situation in Jombang Regency, which has several tourism destinations, but is still little known to the general public. This situation has caused tourism businesses in the area to experience a decline in tourist visits. By displaying a wide selection of tourist attractions in Jombang Regency, it is hoped that it can increase the development of the tourism sector there. Even though there are many tourist destinations in various sub-districts, there is no computerized system that can help prospective tourists choose tourist attractions that suit their criteria, such as distance from the city center, number of visitors, and ratings.

Based on the situation of the Jombang people who are less aware of the tourism potential around Jombang Regency, this research is entitled "Website Admin Dashboard Tourism Information System in Jombang Regency." In this research, I have developed a website that functions as a tourism information system for Jombang Regency. This system uses criteria that involve considering distance from the city center, level of visits, and assessments as a reference in choosing tourist destinations. The decision-making process in choosing problem-solving actions, as stated by Busthomy, Sultoni, & Hariyanto (2016), is systematic problem solving by selecting the best alternative from several alternatives.

### METHOD

The model used in this research is an experimental method with a quantitative approach. The system development model used is the waterfall method. This model is the model most widely used in Software Engineering (SE) (Danang, et al., 2022), because each stage that is carried out must wait for the completion of the previous stage, in other words, each stage must be carried out sequentially. The stages carried out in system development are as follows:

- Engineering, this stage is carried out by collecting information which will later be used to design a tourism information system in Jombang.
- Analysis, this stage is carried out by outlining the definitions of software and hardware. System requirements, applications used, interfaces, forms of information processing, and the tools needed.
- Design, this stage is an explanation of the analysis through data structure stages, software design and algorithm details.
- Code generation, translation of the design into machine readable.
- Testing, the process of testing an information system that has been developed to ensure testing and re-analyzing existing errors, then re-testing continuously until accurate results are found.

## RESULT AND DISCUSSION

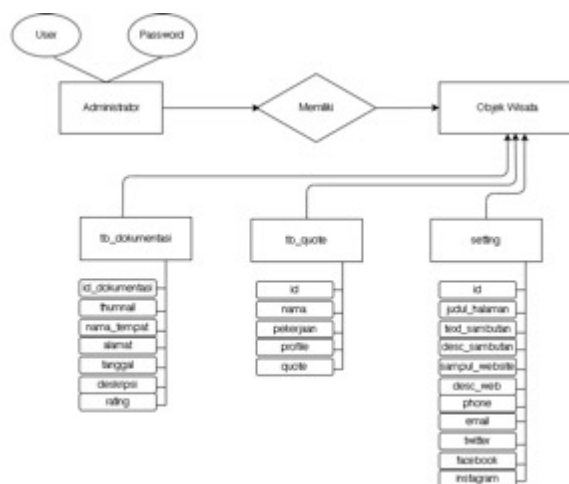
This chapter discusses the planning and development of application systems. After the development stage is complete, testing of system performance is carried out in the application being developed.

### Result

- **System Design**

ERD design (Entity Relation Diagram)

ERD design is a network that uses an abstract arrangement of data stored from the system. The ERD design in this research can be seen in Figure 1.



**Figure 1.** ERD design

Data Flow Diagram design (DFD)

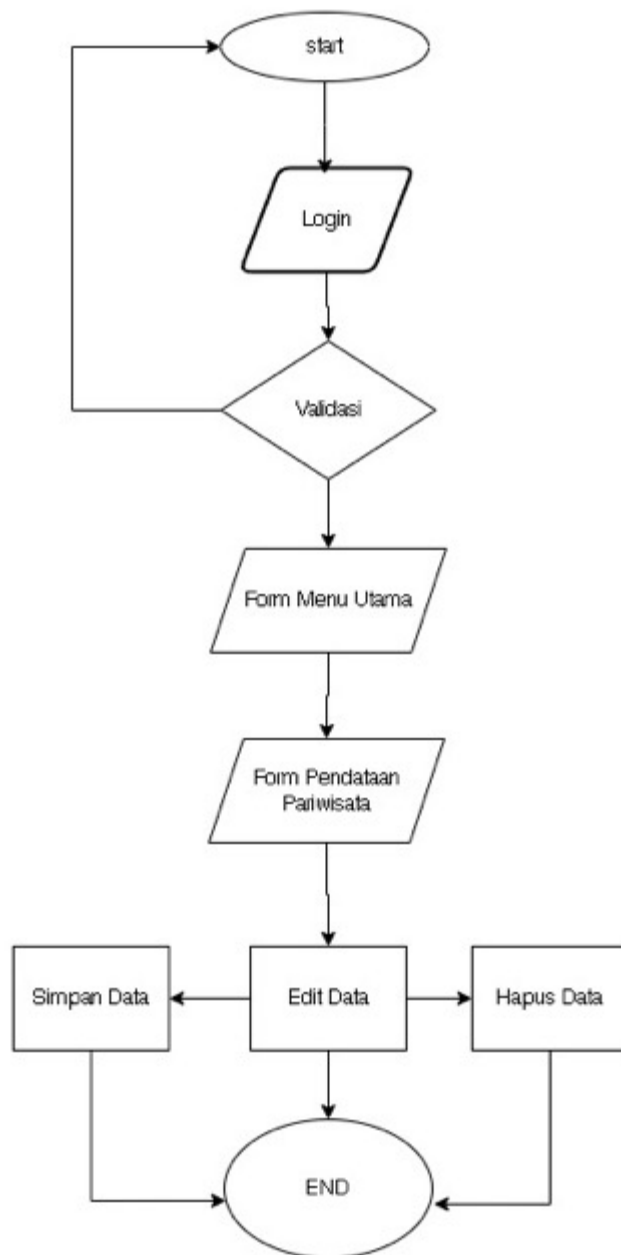
Data Flow Diagram design is a data logic model or process that is created to describe where the data comes from and where the data that leaves the system is going, where the data is stored, what processes produce the stored data, and the processes that apply to the data. The flowchart diagram in this research can be seen in Figure 2.



**Figure 2.** DFD design

Flowchart diagram

A flowchart diagram is a graphic depiction of the steps and sequence of procedures in a program. The flowchart diagram in this research can be seen in Figure 3.



**Figure 3.** Flowchart Diagram

- **System Application View**  
Implementation of the system interface is carried out on every page or display created in the system or application..
- Landing Page
- Dashboard/home page  
This page contains information that is integrated directly between the admin and the user. The dashboard/home page display can be seen in (Figure 4).
- Dokumentation page  
The documentation page displays selected tourism information complete with descriptions of tourist attractions and addresses of tourist attractions. The documentation page display can be seen in (Figure 5).
- Dokumentation detail pages

The documentation detail page contains complete information about the tourist destination, including the name of the tourist attraction, address, documentation date, description of the tourist attraction, and rating. The documentation detail page display can be seen in (Figure 6).



Figure 4. Dashboard/home page

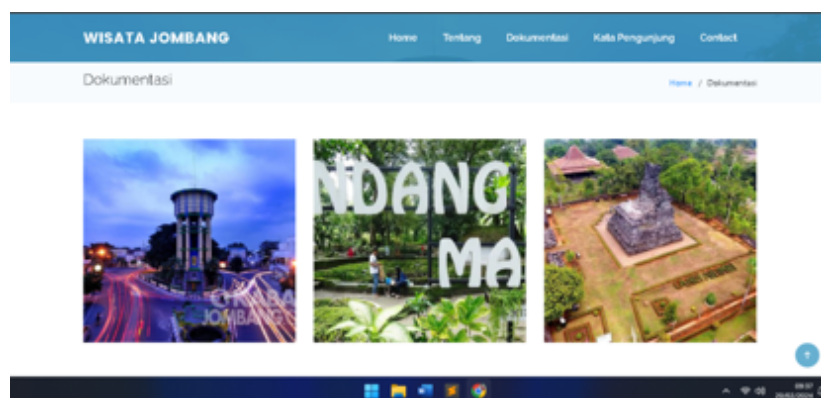


Figure 5. Dokumentation page

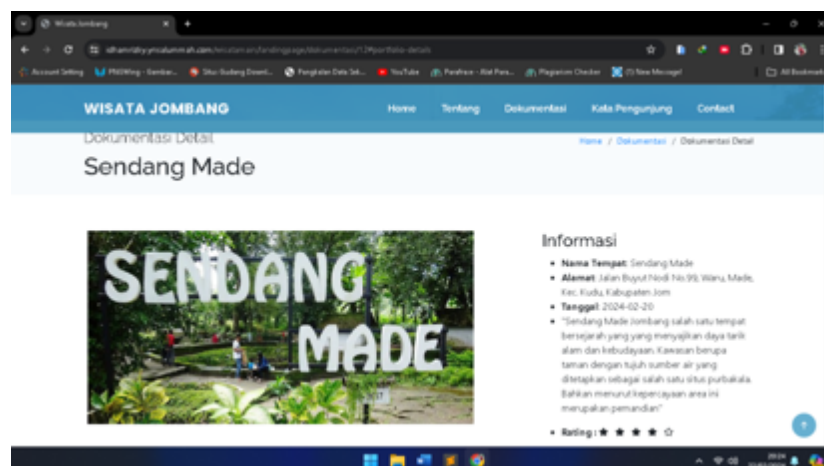
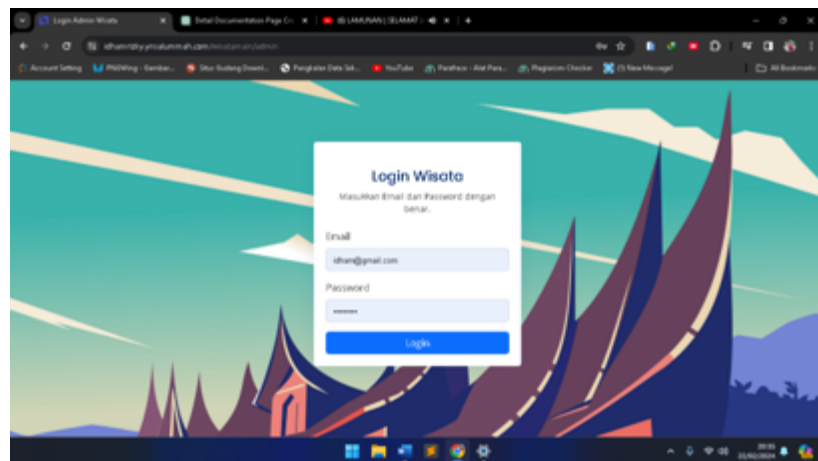


Figure 6. Dokumentation detail page

- Admin login page

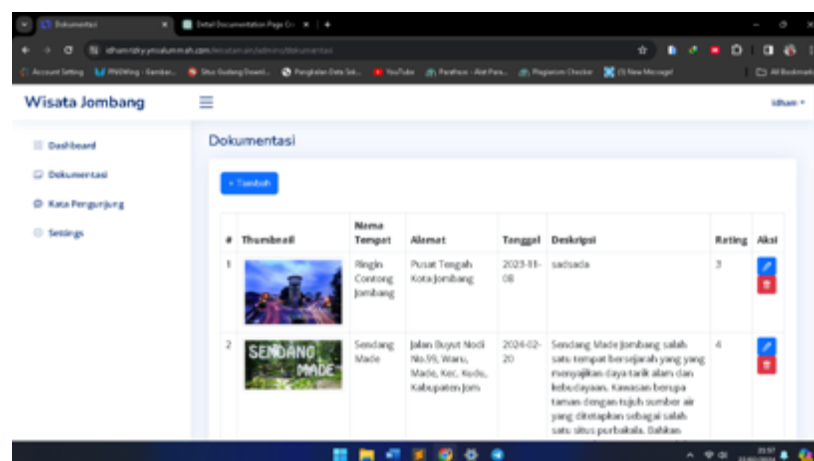
The admin login page is a special page designed for admins who specifically have access to manage all information. This page contains a login menu, username and password. The admin login page display can be seen in (Figure 7).



**Figure 7.** Admin login page

- Admin login page

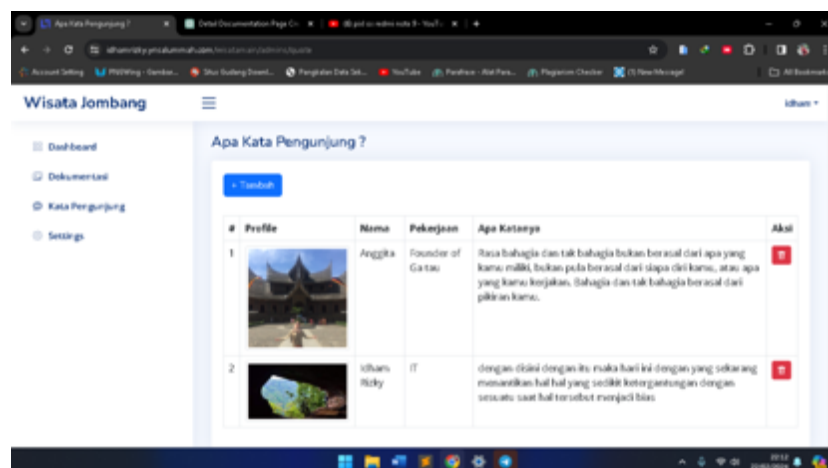
The admin documentation page is a special page used by administrators or system managers to manage and update tourism documentation information that will be available on visitor web pages. The appearance of the admin web page can be seen in Figure 8.



**Figure 8.** Admin documentation page

- Admin page says visitor

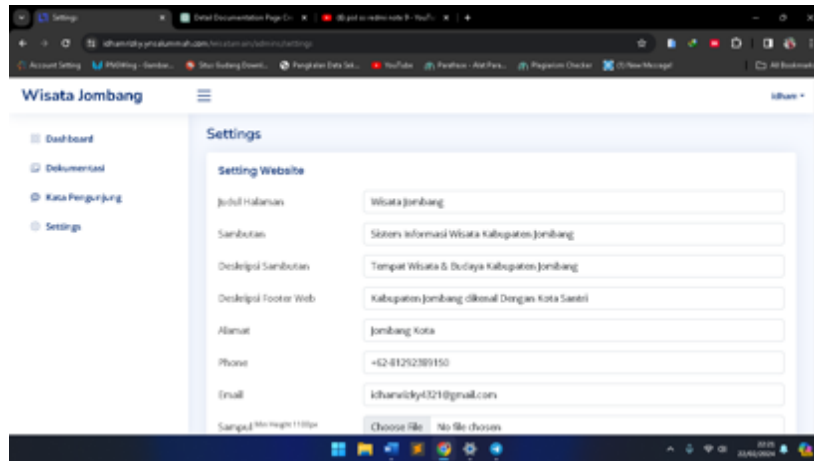
This page is specifically used by administrators to manage user comments or reviews from users. This page allows administrators to add, edit or delete visitor terms as well as manage the display and related settings. The appearance of the admin page for visitors can be seen in Figure 9.



**Figure 9.** Admin says visitor page

- Web setting admin page

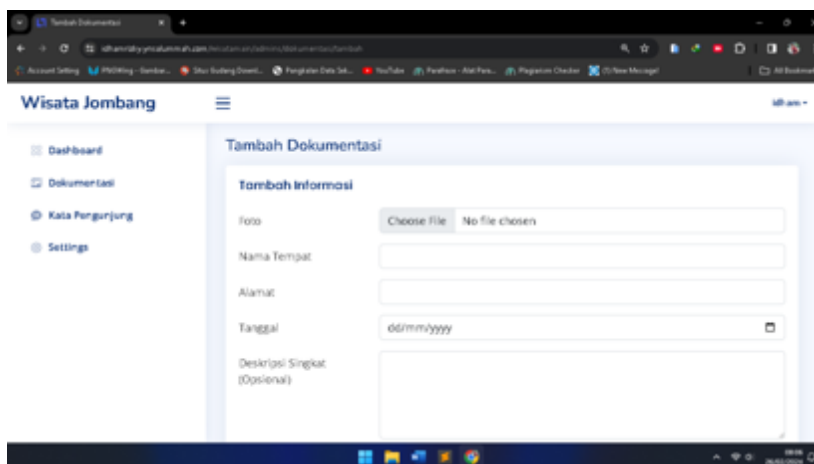
This page contains web configuration settings. This page provides access to various features that allow users to change website settings such as general settings as well as web page identity. The appearance of the web settings admin page can be seen in (Figure 10).



**Figure 10.** Web settings admin page

- Feature page admin documentation

This page is an administrator-only page that allows administrators to add new information to the document. This page also provides access to various features that allow users to create new content and manage added information. The display of the added documentation feature page can be seen in (Figure 11).



**Figure 11.** Add documentation feature page

- Documentation edit feature page

This page allows administrators to edit the content of existing documentation. This page provides various features and tools that make it possible to make changes and manage documentation content easily. The documentation edit feature page display can be seen in (Figure 12).

- Visitor word edit feature page

This page is specifically used by administrators to manage words left by visitors. This page has various features that allow users to edit, add, or delete visitor words. The appearance of the visitor word editing feature page can be seen in (Figure 13).

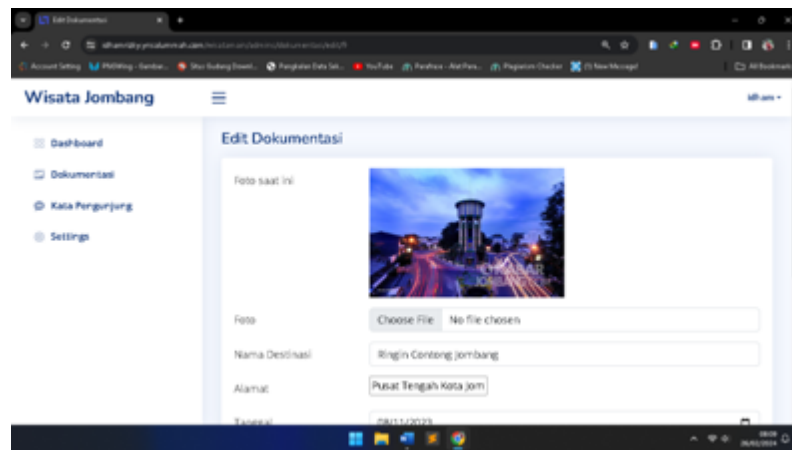


Figure 12. Documentation editing feature page

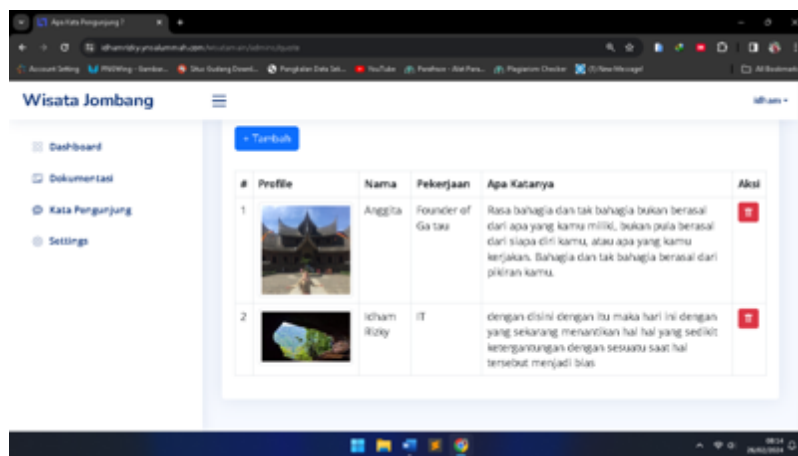
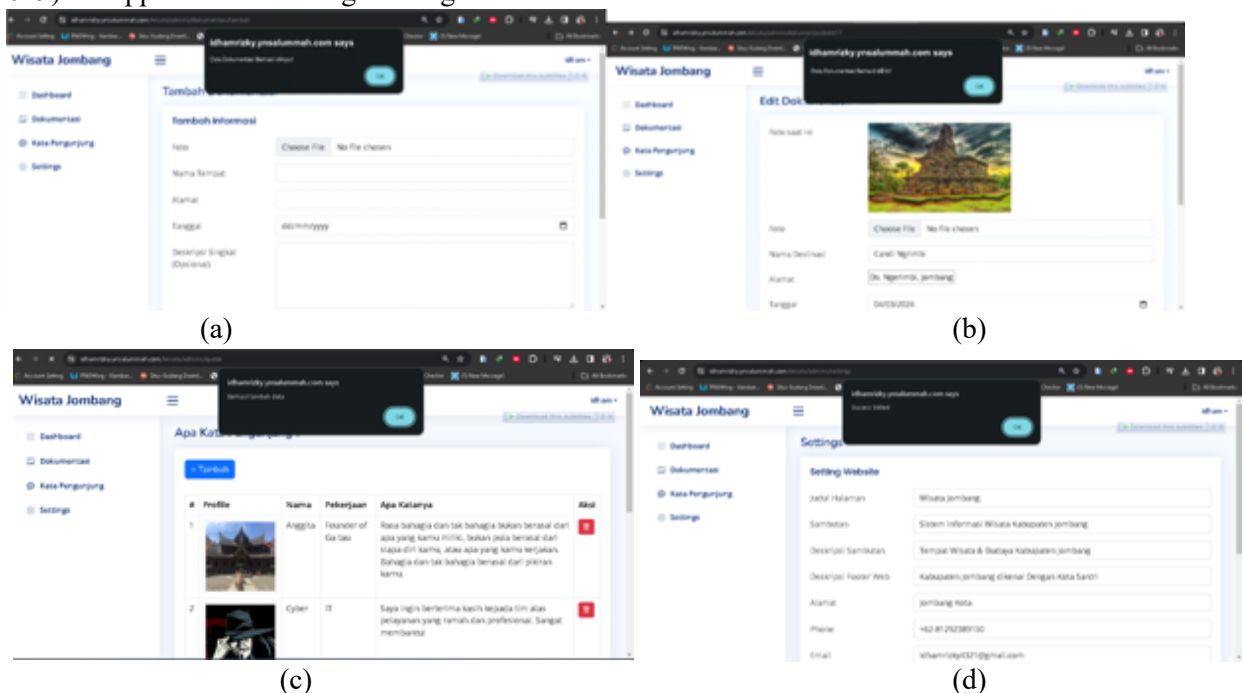


Figure 13. Visitor word editing feature page

## Discussion

After the application development has been completed, the next step is to test the system that has been developed. Testing was carried out using the blackbox method (Idris & Rahmah, 2022). This test is based on functional tests to find out if there are errors in the application being developed (Huda & Nudin, 2019). Application testing using the blackbox method can be seen in Table 1.



**Figure 8.** Submission page, (a) add documentation page, (b) edit documentation page, (c) add visitor word page, (d) web setting admin page.

**Table 1.** System Testing Using the Blackbox Method

Tasted Form	Expected Result	Test Result	Description
Login Admin	If the admin successfully logs in, he can add documentation, visitor word text, setting website	Add documentation, visitor word text, setting website	Corresponding
Add Documentation	Add tourist documentation that will be displayed on the landing page	A form to add documentation appears	Corresponding
Edit Documentation	Edit tourist documentation that will be displayed on the landing page	A form to edit documentation appears	Corresponding
Add Visitor Word Text	admin fills in the visitor's words	A successful admin fills in the visitor's words	Corresponding
Setting Page	The admin ccount settings for web views	A successful Account settings for web views	Corresponding

Table 1 shows that the system developed is in accordance with the expected results. These results are in accordance with research by Yazidinni'am & Harino (2019) which shows that testing using black box texting with menu page results is as expected, meaning the application being developed is ready to use. The test results also show that the application developed has good functional suitability and runs correctly, meaning that the application developed is suitable for implementing a website-based tourism information system in Jombang Regency. The results of this research are in accordance with research by Fridayathie & Laksono (2017); Arizal & Putri (2020) which shows that the development of digital-based applications is very helpful for prospective tourists and tourism managers

## CONCLUSION

Based on the results of the analysis and discussion, a conclusion can be drawn that the design of a tourist information system in Jombang can be developed and applied to make it easier for tourists to determine tourist destinations according to the information obtained from the system being developed.

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