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Email : editorijhess@gmail.com

Decision Supporting System For Providing Free Accommodation To Foreign Tourists In North Sumatera Using Smart Method

Raja Bimantara Wijaya Sitepu [1*)], Darjat Saripurna [2)], Mili Arfisyari [3)]
[1,2,3)] STMIK Kaputama Binjai, Indonesia

*Corresponding Author
Email : rajabimantara01@gmail.com

Abstract

A program for providing free accommodation to foreign tourists in North Sumatra has been designed using the SMART method. This program uses a system that functions as a ranking. This program uses a ranking system that aims to select on desktop devices such as computers and laptops to be carried out in a systematic assessment of the person concerned, this program uses the MySQL system to do programming, this program is intended for agencies whose function is to select foreign tourists. The Program for Providing Free Accommodation to Foreign Tourists in Sumatra uses XAMPP which can be quite easy to use, with this program it can help and facilitate several educational institutions who want to provide free accommodation in exchange for promotional services as well as teaching at their institutions.

Keywords: MySQL, Computer, Laptop, XAMPP

INTRODUCTION

Tourism has an important role in the development of the national economy in general, Indonesia has very abundant wealth as well as tourist areas that are very beautiful and interesting to visit. In North Sumatra itself, there are many places that can attract tourists from abroad, not only that history and culture in North Sumatra also has a special attraction for foreign tourists to learn.

The presence of these foreign tourists has an effect such as helping local residents in developing the creative economy as well as increasing the insight of the surrounding community to be more open to the outside world. Some of these foreign tourists not only come to have fun and unwind from their lives in their respective countries, not a few of them participate in education in Indonesia. With the presence of foreign tourists who participate in the field of education in Indonesia, this raises an idea or idea to create a system design to facilitate agency agencies that need foreign tourists in education and promotion facilities, the problem faced today is in choosing guests and tourists. from outsiders who are willing to trade their skills in education for accommodation as long as they contribute.

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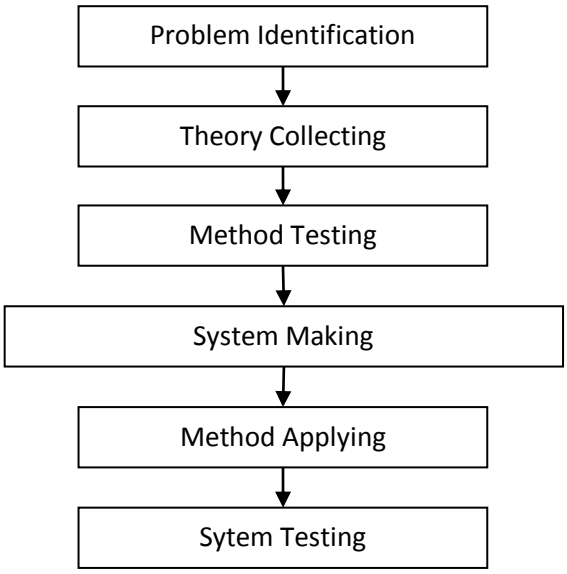
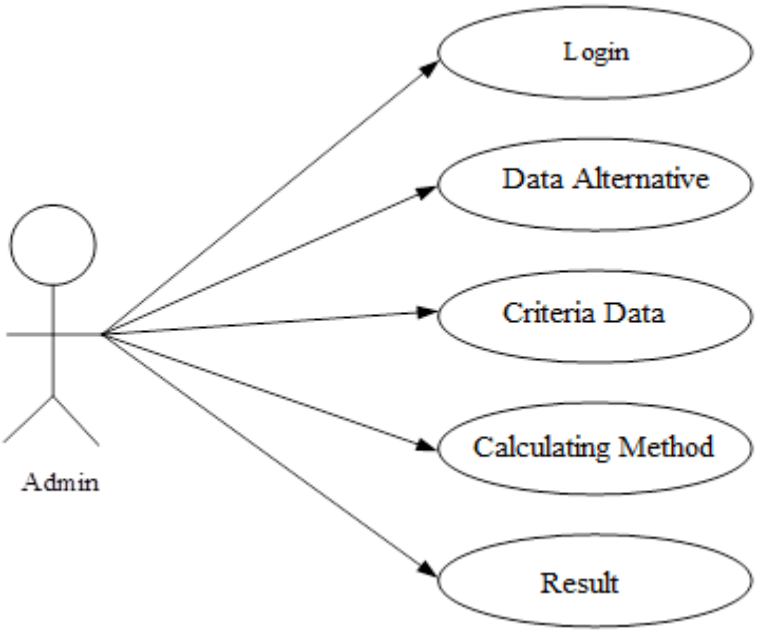
RESEARCH METHODS

Methodology is an analysis of a method or method. This research method is carried out to find information or data systematically using scientific methods and applicable sources. In conducting this research, the researcher followed the methodological stages in the research, namely as follows.



1. Problem Identification
   This stage is the initial stage used to identify problems with the aim of observing and looking for problems that are being faced in the object of research.
2. Theory Collecting
   The collection of theories related to the subject matter such as the theory of decision support systems, the method used is the SMART method and the application of the required system design. In this stage, theory is collected from several sources such as books, journals, articles and other references.
3. Method Testing
   This stage, researchers will test the methods used in the decision support process for tourist accommodation recipients in North Sumatra using the SMART method, with existing guidelines on supporting theories from books and journals related to the subject matter.
4. System Making
   This stage, the system design is carried out on the problem being studied, it can be a stage to design the workflow of the system and also design the design of the interface of the system to be created.
5. System Applying
   Implement methods that have been tested previously with the system design that has been made and perform coding according to the programming language used to create the system.
6. System Testing
   In the final stage, a series of tests are carried out on the system that has been made, tests are carried out in order to find errors in the system and make necessary repairs.

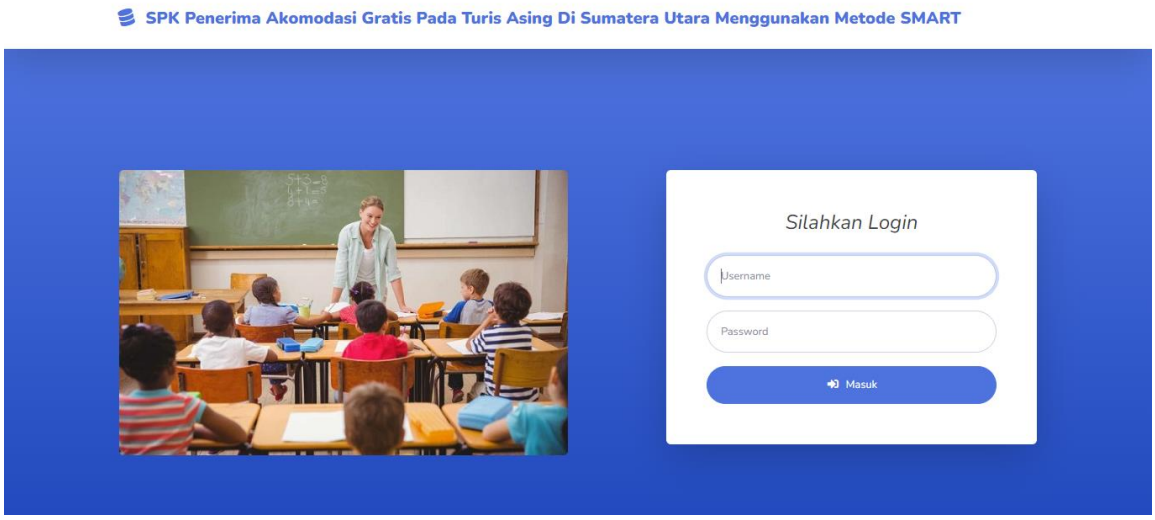
To get information from a system that was created, the researchers used use case diagrams. By using this diagram, the processes that occur in an application will be known. The use case diagram of the design of the application of the SMART method of receiving free accommodation to foreign tourists in North Sumatra is as follows:



The design of the interface (interfce) that is made aims as a guide and illustration in making the system when it is applied to a programming language and becomes an initial description of the application of the decision support system to be built. It is hoped that users who use this system can easily understand the functions of each menu.

1. Login Display Design

   The login view design is the first view displayed and has a function to connect to the main view. In this login screen, the user is required to fill in the username and password provided to enter the system. Login view can be seen



2. Home Page

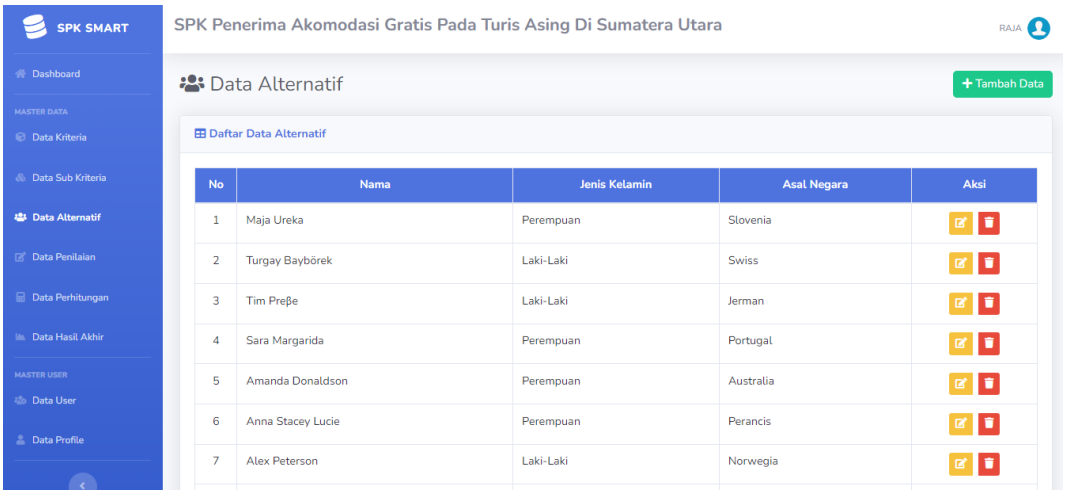
After the user successfully logs in to the system, the user will be directed to the main system page or homepage. The home page is the first screen after successfully logging into the system. This page contains the menus available in the system. The menus on the system have different functions and features.

3. Criteria Data Page

The criteria data page is a page that manages the criteria data and the weights used as an assessment of the alternatives. In the criteria data page there is a button button to add criteria data, change criteria data, and delete criteria data.

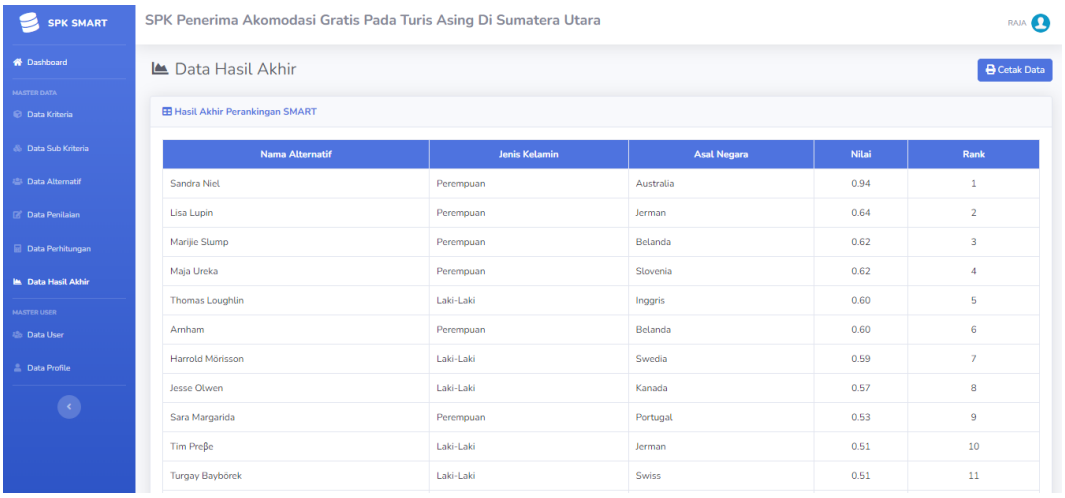
4. Sub Data Criteria
   The sub-criteria data page is a page that manages the sub-criteria data along with values based on the criteria data that have been inputted on the criteria menu. In the sub-criteria data page there is a button button to add sub-criteria data, change sub-criteria data, and delete sub-criteria data.

5. Alternative Data Page
   The alternative data page is a page that manages the data of foreign tourists visiting North Sumatra which will be used as alternative data. In the alternative data page there is a button button to add alternative data, change alternative data, and delete alternative data.

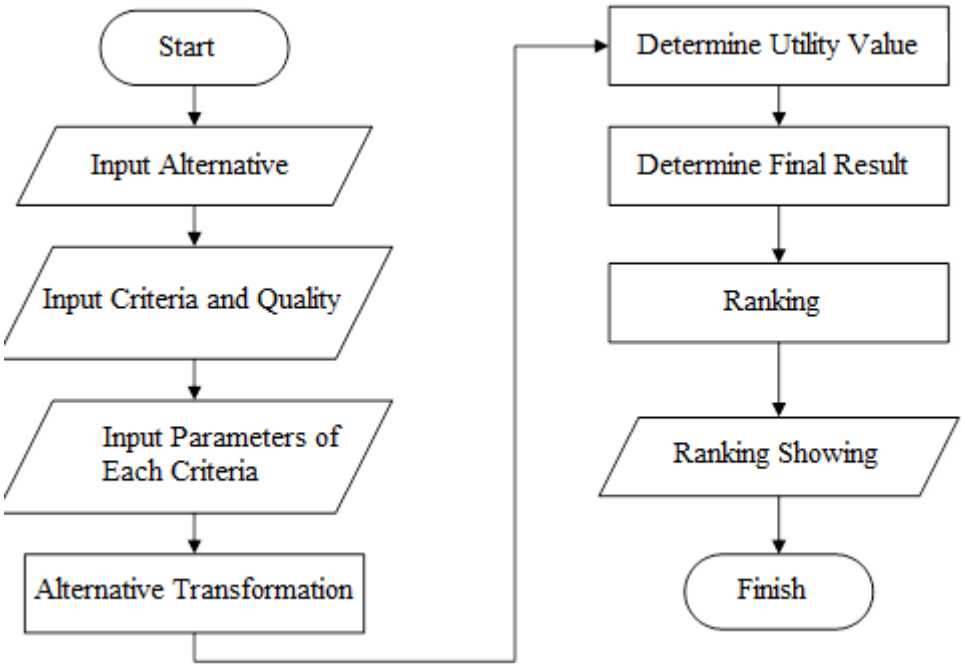


6. Calculating Data Page
   The calculation data page is a page that contains steps and displays the results of the SMART method analysis process.

7. Final Result Page
   The final result data page is a page that contains the final results of the SMART method analysis process in the form of final values that have been sorted from the highest to the lowest value.



In this study, the researcher will explain the flowchart so that the researcher can represent the steps that must be taken in the design.



Algorithms and Programming using the C++ Builder Language" is a graphical representation and the steps that must be followed in solving a problem consisting of a set of symbols where each symbol represents a particular activity.
Flowchart is started by receiving input and ending with output display. Flowchart is a picture that explains the sequence of data readers, data processing, the appearance of decisions on the data and the presentation of the results of data processing.
Purpose of Creating a flowchat:
1. Describe a stage of problem solving.
2. In a simple, unraveled, neat and clear.
3. Use standard symbols.
Types of flowcharts:
1. System Flowchart (System Flowchart)
2. Schematic Flowchart
3. Program Flowchart
4. Process Flowchart

RESULTS AND DISCUSSION

Research plan or design in a narrow sense is defined as a process of collecting and analyzing research data. In a broad sense as a research design includes the process of planning and implementing research. The preparation steps in the Decision Supporting System For Providing Free Accommodation to Foreign Tourtists in North Sumatera Using SMART Method are as follows:
1. Literature Study
The author examines the references obtained from several scientific works such as: thesis journals and from books.

2. Literature Study

The library method, namely collecting data and information by reading references, e-books, websites, documents which include research that has been appointed, books, articles and journals related to object of research.

3. Consultation

Done in consultation with the supervising lecturer for solve problems encountered during device manufacture software and hardware manufacturing.

4. Testing Tool

It is carried out by conducting experiments, testing modules and integrate the module with the program to control the system in order to become a unified whole and obtain maximum results possible.

CONCLUSION

After carrying out the design and manufacturing stages of the system, which is then continued with the testing and analysis stage, the following conclusions can be drawn:

1. With the criteria that have been determined in determining foreign tourists in North Sumatra who will receive free accommodation using the SMART method, the alternative result 14 (A14) on behalf of Sandra Niel from Australia is ranked first, because it has the highest final score of 0.94. With these results it is also concluded that A14 foreign tourists were selected in the selection of recipients of free accommodation for foreign tourists in North Sumatra.
2. Design and build a decision support system in determining foreign tourists who will receive free accommodation using the SMART method using the PHP programming language and MySQL database.

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