Information System for South Aceh Historical Stories

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1. Introduction

The development of science and technology, especially in the field of Information Technology (IT), has brought major changes to people's behavior and lifestyle. For a region, IT development can be used to support organizational activities in storing and processing data and providing information to anyone. The history of the region which is always in touch with the community, IT development can be used to obtain information to make it more effective and efficient.

Supported by the sophistication of information technology, this has enabled the development of increasingly reliable information systems. An information system is a man-made system that generally consists of a set of computer-based and manual components made to collect, store and manage data and provide output information to users... Information systems have certain characteristics or properties including system components, boundaries, external environment of the system, connectors, input, output, processing, and system goals and objectives. [1].

History is inextricably linked with stories. History is material for stories, and stories are a way of presenting history. Some people even position both of them as a dual definition, namely that history is a story whose truth can be accounted for. The story is history whose truth needs to be questioned. Stories are not born from a cultural vacuum, and history is the filler of that culture. This shows that talking about history, also talking about stories and telling stories [2].

The historical story itself is very important for the knowledge of the people who live in tourist locations where to sell tours that have historical story value in them, historical stories in a tourist spot can be an attraction or selling power for tourists to come to these tourist sites. South Aceh is an area that has stories from the past, which are real events or fictional stories or myths that have happened a long time ago and are key to tourism in the South Aceh area. Tourism or areas on each side of villages in South Aceh have their own stories and history.

As a developing area, South Aceh has a lot of history in every village, where there are still many children, immigrants, and foreigners who do not know the history of South Aceh. In this study, the authors propose to build an information system for historical stories in South Aceh. With this application, it is hoped that it can help children, immigrants, and foreigners know the history of South Aceh.
1.1. Formulation of the problem
Based on the background of the problems above, the problem can be formulated, namely: How to build a South Aceh History Information System?

1.2. Research purposes
The goal to be achieved is to create an information system for historical stories in South Aceh with the availability a system where people can easily get information about historical stories in South Aceh quickly.

1.3. Research Urgency
South Aceh is an area in Aceh with a variety of cultures and folklore. It is hoped that this research can help children, immigrants, and foreigners know the history of South Aceh. So that the stories and history in South Aceh are not lost and forgotten by future generations.

II. The Proposed Method

2.1. Understanding System
The system is a network of procedures that are interconnected and collected together to carry out an activity or for a specific purpose [3]. A system is a group of integrated elements with the same intention to achieve a goal [4].

2.2. Characteristics of the system
a. System Components (Components)
A system consists of many interacting components, which work together to form a single unit. The system components can be in the form of a subsystem.

b. System Limits (Boundaries)
The scope of the system is the area that limits the system to other systems or systems with their external environment. This system limit allows a system to be seen as a single unit that cannot be separated.

c. System Outside Environment (environment)
The external environment of the system is any form that is outside the scope or boundaries of the system that affects the operation of the system.

d. System Connector (Interface)
A liaison system or interface is the media that connects the system with other subsystems.

e. System Input (Input)
The energy put into the system is called system input, which can be in the form of maintenance (maintenance input) and signal (signal input).

f. System Output (Output)
This output is input for other subsystems. As an example of an information system, the resulting output is information, where this information can be used as input for decision-making or other matters which are input for other subsystems.

g. System Processor (Process)
A system can have a process that will convert inputs into outputs. System Target (Objective) A system has definite goals and objectives and is deterministic.

2.3. Definition of Information
Information is data that has been processed into a form that is more meaningful and useful for recipients to make current and future decisions [5], information as data that has been processed into a form that is more meaningful and useful for its users in making decisions both for now and in the future [1].

2.4. Definition of Information Systems
In general, the information system can be interpreted as a collection of interrelated information that is used to obtain certain information. In [3], it is explained that the system is a collection of elements, components, or variables that are organized, interacting, integrated, and interdependent with one another. Information is classified data in the
decision-making process that aims to increase knowledge and reduce the uncertainty of information users.

According to [4], an information system is data that is collected, grouped, and processed in such a way as to become a unit of information that is interrelated and mutually supportive so that it becomes valuable information for those who receive it. Furthermore, according to [5], an information system is a system that can gather information from all sources and use a variety of media to display information.

2.5. HISTORY
According to experts, history comes from the Arabic syajarah which means tree or genealogy. According to Hariyono, history is a history of the past, a history that explains the origin and process of an event. History can help students to understand human behavior in the past, present, and future (new goals of history education). In a human society with all its aspects and the continuous process of its development from the beginning of history to the present which is useful for guiding the life of human society today and the direction of ideals for the future. Muhammad Yamin argues that history is a science in general that is related to stories with dates as a result of the interpretation of events in human society in the past, namely the composition of the results of investigations of written materials or other signs [7].

2.6. System Development Life Cycle (SDLC)
In this study, researchers took the System Development Life Cycle (SDLC) development model approach so that the process of building this information system was carried out sequentially and well organized.

2.7. The SDLC conceptual process model includes:
   a. Planning
   In this section, the researcher identifies the problem and determines the scope of the research to determine the steps in the process of solving the problem under study, including determining resources, financial budgets, and technical workmanship.
   b. Needs Analysis
   In this section, the researcher conducts a needs analysis involving the functional requirements of the system for the end user.
   c. designing systems
   In this section, researchers design modules, security, architecture, information system interfaces and evaluate software both in functional and operational aspects.
   d. Building Software
   In this section the team works on building, coding and fixing the overall required technical and physical configuration.
e. Software Testing
   This stage tests the system as a whole in order to answer the expected goals, this is done to ensure satisfaction with the use of the system to end users and find errors in the system.

f. Software Implementation
   This stage is to release the software ready for use by end users.

g. Maintenance
   At this stage, end users can contribute to improving the system to improve performance and add features. This stage is important to do in order to evaluate performance, the application of new technology to anticipate cyber security.

In getting maximum results in the development of this historical information system, the authors focus on using a parallel model approach [8]. This methodology is a development of the waterfall methodology, where the processes in system design and implementation are carried out sequentially for the entire system and then divided into different sub-activities which are carried out in parallel.

![Parallel Model Approach](image)

**Fig. 2. Parallel Model Approach [8]**

2.8. Unified Modeling Language (UML)
   UML is a set of tools used in abstracting an object-based system or software. Based on research [6], the use of UML is very good in improving the quality of software produced and the ease of maintenance of software in the future, because using UML can identify 11 types of errors in use case scenarios and 7 errors when modeling use cases.

III. Method
   The research procedure can be seen in the fishbone below:

![Fishbone Research](image)

**Fig. 3. Fishbone Research**

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There are 5 (five) stages of the procedure in this study, namely:

a. Observation Stage
Researchers together with members make observations with field studies to obtain running system data, collect information to identify problems in the running system then formulate problems and set research objectives. Next, do a literature review by looking at previous research to support the research being conducted.

b. Preparatory Stages
At this stage, proposals and supporting instruments are prepared such as Focus Group Discussions (FGD) between the chairperson and research members regarding the research topics being carried out, preparing research administration such as research letters and RAB, compiling a research schedule and dividing tasks between the chairperson and research members.

c. Implementation Stages
At this stage, the lead researcher jointly implements the tasks in the preparation stage including issues of the system and framework to be used, designs and performs coding and tests the system, finds debugging of the system, both security and user interface issues, and then implement it following the SDLC methodology.

d. Evaluation Stage
At this stage, the lead researcher together with research members compiled, created and distributed questionnaires regarding the information system under study to see weaknesses and the possibility of adding features for later maintenance. Next make conclusions from the questionnaire data on the readiness of the system as a whole.

e. Stages of Implementation Results
At this stage the chairman makes a report on the results of the Information System Simulation of regional stories.

f. Places and Research Subjects
The research was conducted in South Aceh District. As for the subjects of this study, historical stories in South Aceh were either told by village advice or from written history books.

IV. Conclusion
1. Information system website/database
Based on the results of the research, the results were found in the form of a website that would become a database that would function as a place to upload data, edit and delete historical data which would be displayed on an android application that would become a medium for readers.

2. Android application
This application is an information system built for readers so that it is easily accessed by the public and readers.

References


