INFORMATION SYSTEM OF URBAN PUBLIC TRANSPORT IN THE CITY OF PALEMBANG

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Abstract. Palembang is one of the cities that have problems of overcrowding. The population density is caused by the large number of existing jobs. That makes Palembang be busy and bustling city leading to high levels of congestion that occurs. These problems make public transportation in Palembang can be one of altrenatif to lower the level of congestion. In Palembang has a lot of public transportation in many areas. The problem is there are still many people who do not know about public transportation information service, because there is no definite information about the routes of public transportation so the authors create an information system on public transportation in Palembang. The datas which are processed in information systems are route, the code data of vehicles, flat-rate data and the map data. In this system of processing using software programming language PHP (Hypertext Preprocessor), MySQL database (My Structured Query Language) and method of SDLC (System Development Life Cycle), so that output is Information System of Route Urban Public Transport In The City of Palembang.

Keywords: Information systems, Route, Transportation, PHP, SDLC, Palembang City.

I. INTRODUCTION

Palembang is the one of the biggest city in Indonesia. Being growth Palembang is one of city that has many job vacancy. As the impact of this condition, density is also increased. Population density cause the large number of existing vehicles, so it makes traffic jams in most part of the city. This problem can make public transportation or usually known as Angkot become one of the alternative to reduce the activities of local community using private vehicles. In Palembang itself the amount of Angkot is so many and it spreaded invarious areas. Angkot which is already spreaded ini various areas, has a different routes. So people who use Angkot must change the Angkot to get them to the desired location,this can be called a transportation route. But little information about angkot route make Palembang's people or the people who just stay in Palembang do not undestand about the route which will be passed by the angkot. Actually people can ask to the local community near their location, but this solutions is not effective and efficient. Because for the people who do not know about the streets in Palembang will confuse although they have been explained about the route and it takes time to memorize the route. So based on this fact the author try to use the tecnology in order to help people knowing the route they should take whenever they used public transpotation called Angkot.

Now, technology have been role in any daily activities. Information systems can easily be created, to provide ease of findinginformations and save times, including in public tranportations (Angkot). For Providing information system of route urban public transportation in the city of Palembang, so this research aims to design and build a mobile web based on information system that is expected to facilitate the people who use public transportation know the information about route, rate, and road map which passed by angkot.

II. RESEARCH METHODOLOGY

The system is a collection of interrelated components and has goals to be achieved. The goals are [1] The information is the result of processing data in a form that is more useful and more meaningful for the recipient which describes a real events that are used for making a decision. [2] To make this information system of route transportation uses PHP (*Hypertext Preprocessor*) programing languange, database MySQL (*My Structured Query Language*) and SDLC (*System Development Life Cycle*). The Methode is

developing process *software waterfall*. PHP is one of the*server side scripting* languages which is inserted between HTML (*Hypertext Markup Language*) language to create a dinamic web pages. [3] MySQL database serves as storage. [4] SDLC is the approach through several steps to analyze and design systems where the system has been developed very well through the cycle of activity and specific analyzer.

III.RESULTS AND DISCUSSION

a.Tool

This information system uses hardware and software as a material support.
1. Hardwareused :
   - Intel (R) celeron (R) processor 1019Y
   - RAM 2GB
   - Printer Canon iP2700 series
   - Flashdisk 32GB
2. Softwareused :
   - Microsoft windows 7 ultimate
   - PHP Language Program version 5.3.13
   - MySQL version 5.5.24
   - XAMPP
   - Argo UML
   - Mozila Firefox

b. Materials

This information system uses materials consisting of:
1. The data consist of the routes data, angkot code data, rate data and roadmap which passed by angkot.
2. A4 Paper.
3. Books and journals that can be attributed to make this information system

c. Data Analysis Method
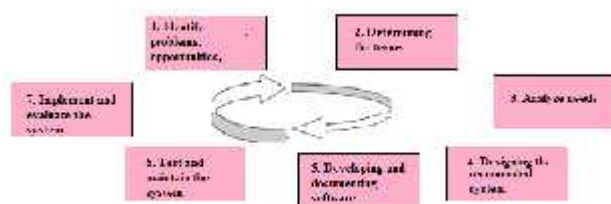
Here's the SDLC translation method in the information system of route urban public transport in the city of Palembang :
a. Identify problems, opportunities and objectives.
   In this information system, problems which is visible is the absence of official information about Palembang angkot, because of that reason the author want to make this information system can facilitate the community to get official information about angkot in the city of Palembang.
b. Determining the terms.
   In this information system, the authors interviewed The Section Head of Road Traffic and Transport Dinas Perhubungan Komunikasi dan Informatika

Provinsi Sumatera Selatan, and analyze the raw data in the form of routes data, angkots code data, rate data and roadmap which passed by angkot.
c. Analyze the needs of the system.
   The author made a draft as the basis this information system.
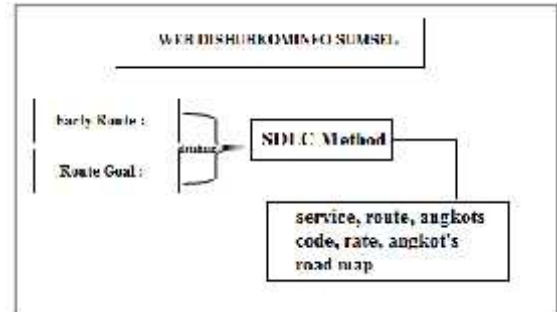
Picture 2. Design of information system of route urban public transport in the city of Palembang

Generally, that will be build as an information system about Angkots rute routes, by entering the original location and destination locations that will be addressed in the system, then the results will be angkot code, angkot color, angkot route, angkot rate and roadmap which passed by angkot. This infomation system will be input in Dinas Perhubungan Komunikasi dan Informatika Sumatera Selatan Website.

d. Designing the recommended system
   in this information system, the authors designed a complete search of destination location, route information, angkot codes, rate, and angkot roadmap. The design of the information system to illustrate an application program using a computer. This is the description dan use case diagram of this information system :
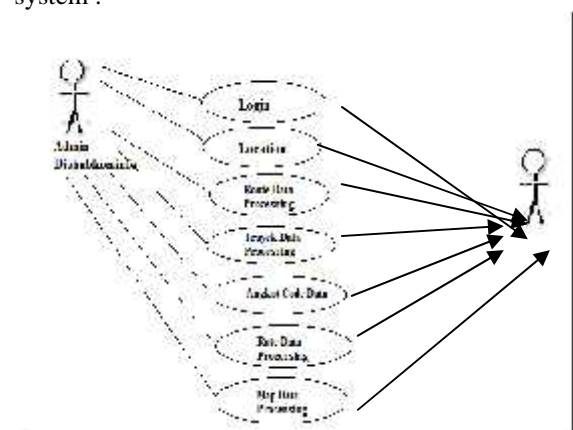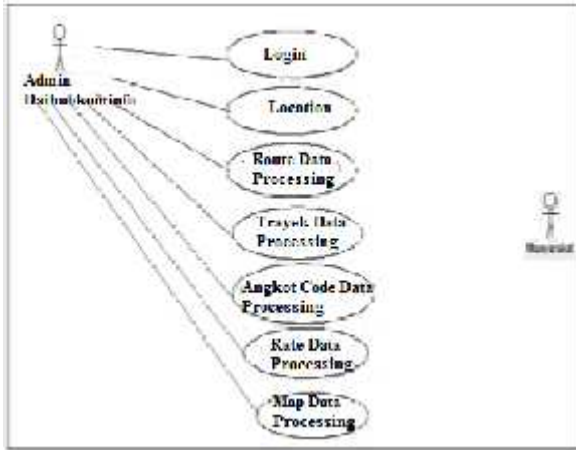
Picture 3. Use Case Diagram

TABLE 1
USE CASE DESCRIPTION

No.	Actor	Description
1.	Admin Dishubkominfo	The person in charge and have access rights to perform processing route data, route data, angkot code data, rate data, and angkot roadmap.
2.	Public	People who searchinformation about angkot.

TABLE 2
USE CASE DESCRIPTION

No.	Use Case	Description
1.	Login	The process for the admin to be entered into the system.
2.	Location	The process to manage data location either edit or save and delete
3.	Route data processing	The process to manage route data either edit or save and delete
4.		The process to manage trayek data either edit or save and delete
5.	Angkot code data processing	The process to manage angkot code data either edit or save and delete
6.	Rate data processing	The process to manage rate data either edit or save and delete
7.	Map data processing	The process to manage map data either edit or save and delete

e. Developing and documenting software.

In this information system, authors develop document links to the contain in the information system at Dishubkominfo Sumatera Selatan website. The software is built to deliver data in the form of angkot information using SDLC method was developed in the programming language PHP and MySQL database storage system.

f. Test and mantain the system.

After designing and making this information system finished, the next steps is testing the system. Tests on this information system using *black box testing*. *Black box* testing is a test that focuses on functionalist of the software.

TABLE 3
TESTING BLACK BOX

User Name	Test Class	Test Item Added Scenario	Kind Testing	Result
Admin Dishubkominfo	Login as systems admin	- display login menu - display Route Data Menu	Aplikasi	Work
	route menu	dipslay information about, route,rate,code angkot, route, and angkot roadmap	Aplikasi	Work

Picture 4. Testing Table

g. Implement and evaluate the system.

In implemntation of this information system, autors will involve Dishubkominfo Sumatera Selatan admin to be trained about information system that has been made.

In this information system, there are two levels of users, they are people who use angkot and administrator.

1. People who use angkot can only access the main page. They can input origin place and destination they need and the system will provide angkot information that is needed.
2. Page administrator, can log into the content of pages that containinformation, he can perform data editing.

There are the result of information sytem of route urban public in the city of Palembang:

a. Login Page

This page serves as a security measure against the system, which determines who can enter the system. Admin should fill username and password correctly to enter to the next page on the system, while the wrong filled of username and password, the system will not allow the admin to enter the system.

b. Admin Page
   This page serves as the main

Only admin can store, edit and delete data in this page. This page consist of origin route data, destination route data, data route, angkot code data, angkot color data, rate data, angkot picture data, dan
roadmap.

Picture 5. Login Page

Picture 6. Admin Page

c. Main Page
   Main page provide searching button for the location and the angkot destination.
    selection of angkot route.

Picture 7. Main Page

d. Contents Page
   This page serves as a page that provides information about angkot that is needed.

Picture 8. Contents Page

II. CONCLUSION

This study has been made information systems of route urban public in the city of Palembang where the presence of this system is expected to facilitate the angkotusers to find out information aboutpublic
transportation more easily and from a trusted source and can be done any time through an Internet connection. The weakness of this information system is thesystem can not show the travel time of the distance between origin locations and destination

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