Research Proposal

M-Ticketing :

Improve The Quality of Movie Ticket Booking Service

Via Mobile

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A. BACKGROUND

The desire of community to obtain easy in performing daily activities encouraging rapid technological progress. Many technology aimed at providing desired ease, such as internet. The fact that can't be denied this time is the fact almost anything can be obtained on the internet. With the progress of Internet technology allows one to obtain information and conduct transactions freely without being limited by space and time.

However, this technology still not yet fully utilized. As one problem that quite simple but often occur in everyday of life is booking movie tickets. Many customers should be in line long enough to get tickets, sometimes even had to queue was not successfully to get tickets. Of course, it's impact of losses due to time used to queue can be more effective by doing other things more useful. (Elidjen,2005)

One alternatif to solving problems is to utilize internet more better via web at the office, in cafes, in school, at home or via WAP by using mobile handheld devices support. Customer can book tickets via online for showtimes at the movie theater anytime anywhere without having to wait in line, and also transactions can be done from anywhere and anytime.

On previous research (conducted by Setia Budi, Maranatha Christian University), He have made an application that helps users in terms of booking movie tickets, but still less than optimal performance. After user confirm via mobile for booking movie ticket that they want through the application, they must go to the bank designated for transfer payments. Then transfer the evidence they later redeem the ticket when going to watch a movie.

It is certainly less efficient, because the ticket buyer still had to go to the bank for payment. Yet in his own bank queues sometimes still occur. Not to mention it, later when the exchange tickets at the movie theater, they sometimes have to wait in line again.

Therefore, through this research I try to improve the quality of a movie ticket booking service by adding some features to existing applications. Performance of existing applications still in use, but before the user can use these applications, they must first register via SMS to the operator who works with the movie theater. Then user will get PIN as a password to login. After user confirm reservations desired movie, they didn't bother to cut the bank for immediate payment of cellular phone toll. few moments later the buyer will get a code and the number sitting via sms from cellular operators. The code serves as a replacement ticket at the movie theater. So when will go to watch a movie, simply by showing the code to the clerk.

B. LITERATURE REVIEW

B.1 INTERNET

Understanding the internet

Internet (Interconnection Networking) is a computer network that is widespread thorughput the world with the operating system different. Internet can be considered as the best library and also a place where communication and exchange of information is easy because not limited by the space and time. In practice, other than as medium of exchange of information. Internet also used by various parties as a medium transactions, including purchases and sale transactions. Because internet is very supportive braided effective communication between the various parties.

To be able to connect to the network internet, a computer (or network computer) must have a relationship with ISP (Internet Service Provider) which connects to the ISP that larger and so on until an ISP is connected to most major ISP (including the world). When you are connected, computer users can browse the internet network should be in a private network.

Information on the internet is stored in a file site made by their respective owners information. To access the information, user must enter the site owners information. Site on the internet usually have a user interface that allows users to access information stored in the file on the site.

How the internet works

When a user wants to access a site at internet, users only need to type in the address site known as URL address on the browser. For example: http://www.21Cineplex.com. The browser will divide the URL into 3 parts, namely :

- Protocol is used (in the example above is http)
- Name server information site owner/ domain name (www.21Cineplex.com)
- File name to be accessed (index.htm)

Then the browser will access the Domain Name Server (DNS) to obtain IP address on the type domain names (each domain name that is connected to the internet already have their own IP address and unique). After obtain an IP address then the browser will process requests to the server/ domain to access the information contained in the desired file.
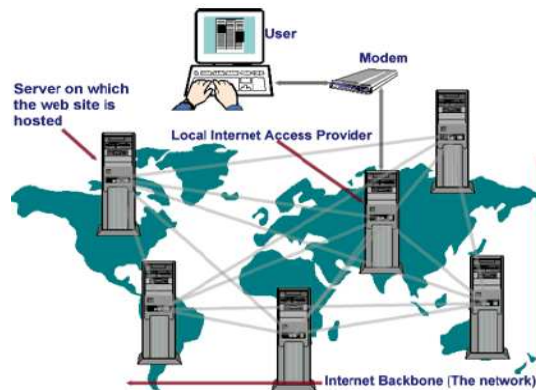
Picture1. How Internet works

B.2 WAP

WAP stands for Wireless Application Protocol, is a protocol communication that allows users to access information instantly via wireless handheld devices such as celluler telephone, Pagers, two-ways radios, smartphones and communicator. Defined by the WAP Forum (http://www.WAPForum.org), WAP into the open global standart for communication between a mobile handsets and the internet or application other computers. Because it is an open protocol for wireless messaging, WAP provide the same technollogy for all providers from various networks, including CDPD, CDMA, GSM, PDC, PHS, TDMA, FLEX, Reflex, iDEN, TETRA, DETC, DataTAC, Mobitex and supported by most operating systems, especially systems operation that was built for handheld mobile devices include PalmOS, EPOC, Windows CE, FLEXOS, OS/9, and JavaOS.

There are 3 reasons why the internet in wireless device requires WAP:

1. Transfer speed

Most mobile phones and PDAs that webenabled has a data ransfer rate is only approximately 14.4 Kbps or less. Most current web page is very dense with graphics will take a very long, if the download with rate 14.4 Kbps.

2. Size and readability

This web page will not be displayed well on the LCD in a mobile handheld devices (relatively mobile handheld screen resolution much smaller device than the PC or laptop).

3. Navigation

On mobile handheld devices, most navigation is done using a hand on a scroll keys.

WAP was built using WML language (an XML application), which made for display on the small screen and navigation with one hand without using mouse and keyboard. WML can create a display that consists of 2 lines of text to a graphic display usually found on smartphones and communicator. WML is similar to JavaScript, but only require memory and more CPU power slightly because WML does not contain unnecessary functions which found in another scripting language. WAP also using standart internet protocols such as UDP, IP, and XML.

Meanwhile, to make a WAP Website, a site to make versions of only text or text and graphics in a low-level HTTP file formats. Web Server than send the file to a WAP Gateway. Wap Gateway has a WAP encoder, script compiler and protocol adapters to change the information in the form of HTTP into WML. Gateway then sends the data in the conversion to the WAP client on the wireless device.

How WAP works

When a mobile handheld device connected to a wireless network and asked access a website that support WAP, your handheld mobile device will send request via radio waves to a cell nearby, which routed directly to the internet through a gateway server. Server gateway will translete the request into a format standard HTTP and forward it to the site web.

If the site is respon, it will send HTML document to the server gateway. Then converted to WML and route it to the nearest antenna. It will send data to the device via wave and finally microbrowser.
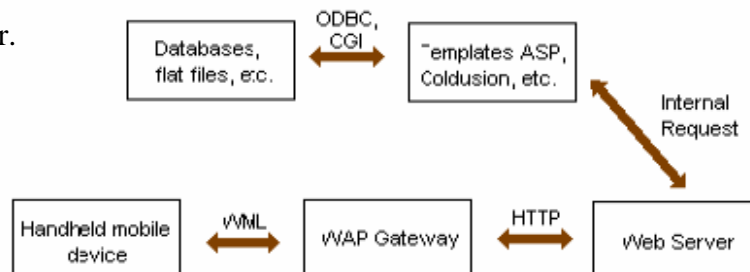
B.3 **SMS (Short Message Service)**

Short Message Service, or commonly abbreviated as SMS is a service that many applied to wireless communication systems (wireless), allows for delivery in the form of alphanumeric messages between terminal clients or customers with teminal between external systems, such as e-mail, paging, voice mail, and others. SMS application is an application most enthusiasts and users. This can be evidenced by the emergence of various types of applications that use SMS facility.

SMS transmission properties of a short burst of applications that make use of SMS is usually in the form of data transmission applications concise and short. The nature of mobile SMS device and can send information from anywhere as long as the opertaor coverage, which led to field applications that information collected from the field sent periodically to the information processing center. In the field of entertainment, SMS applications can be used as a medium for playing games or exchanging messages of humor and the characters who present a picture of text.

SMS technology has several advantages, including:

1. cheap.prices

2. "delivered service oriented", mean the message will always endeavored to be sent to the destination. If at any time the destination number is not active or outside the network, the message is stored in the SMSC (SMS Center) server fund that will be sent immediately after the number active destination. The message will also be sent to the destination even if the destination number is in talks (busy).

3. Can be sent to multiple recipients at once at the same time.

4. Messages can be sent to various kinds of purposes, such as e-mail, IP, or other applications.

5. Usefulness lot, the way content is integrated with the application, SMS can be used for

C. Methods of The Research

This research is planned to be implemented in 5 months. As for the method used as follows:
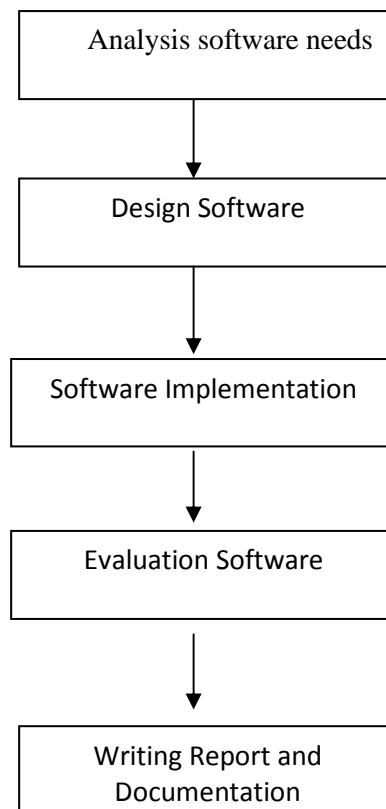
a. *Literature study*. This method is used to obtain additional information that is used as a reference in developing software.

b. *Field study*. Field study to the movies and to find out seluller company faced problems especially in the provision of public services

c. *Survey*

conducted surveys of visitors to the movie theater to find out opinions, criticisms, and suggestions visitors to services at the movie theater

The following stages of the program :

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┌─────────────────────────────┐
│   Analysis software needs   │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│       Design Software       │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│   Software Implementation   │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│     Evaluation Software     │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│     Writing Report and      │
│        Documentation        │
└─────────────────────────────┘
```

Picture3. Flow Diagram Levels of Program Implementation

Detail of each are as follows :

1. Analysis software needs

At this stage the entire information-gathering carried out functional requirements and non functional from the software purchase tickets via this mobile, the resulting output of this stage is to document the software requirements specification.

2. Design software.

At this stage the design of software that focuses on data design, interface design, detailed process, and software architecture. The design of data describing the details of each data attribute is used. The design represents the interface of the software interface that will be made. While the design process will describe the details of the algorithm used. The resulting design is documented further. The output of this phase is to document the software design description.

3. Software implementation.

At this stage of coding is the software and creating database used by the software. Making software and database design or customize the documentation that had been developed in the previous stage. At this stage also done data entry into the database. Output of this stage is software m-ticketing and the use of manual document.

4. Evaluation Software

Software evaluation conducted by an evaluation on the design and implementation stages of software. Then after the software is completed, the final stage of evaluation conducted by publicly launched the beta version in order to obtain advice for improvement of the software.

D. Hypothesis

Right now there are many movie theater doing ministry in the conventional ticket sales where the buyer must come directly to the place to buy. Only a few are already implementing the purchase tickets via mobile, and then still have to make transfer payments to the bank.

With the development of mobile applications research that already exists, it is expected to minimize the queues and purchase movie tickets can facilitate management of the movie ticket sales itself.

E. Research Schedule

No	Activity	Jan				Feb				March				Apr				May			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	Analysis software needs	■	■	■																	
2	Design software			■	■	■	■														
3	Software Implementation						■	■	■	■	■	■	■	■							
4	Evaluation Software			■			■								■	■	■				
5	Writing Report and Documentation																	■	■	■	■

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