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JUDUL: INTEGRATED KL LRT TRAVEL GUIDE

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Saya FAUZIAH BINTI ABDULLAH
(HURUF BESAR)

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(TANDATANGAN PENULIS)

Alamat tetap : 93, Kampung Bendahara, Jln Sg Tua,61800 Batu Caves, Selangor

Tarikh : 27 April 2006

(TANDATANGAN PENYELIA)

HAJI MUHAMMAD SUHAIZAN BIN SULONG
Fakulti Teknologi Maklumat dan Komunikasi
Kolej Universiti Teknikal Kebangsaan Malaysia
Karung Berkunci 1200
Ayer Keroh, 75450 Melaka

Nama Penyelia: Tuan Haji Muhammad Suhaizan bin Sulong

Tarikh : 27 April 2006

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INTEGRATED KL LRT TRAVEL GUIDE

FAUZIAH BINTI ABDULLAH

This report is submitted in partial fulfillment of the requirements for the Bachelor of Information and communications Technology (Software Development)

FACULTY OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA
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(FAUZIAH BINTI ABDULLAH)

SUPERVISOR _____ Date 27/4/2006

(TUAN HAJI MUHAMMAD SUHAIZAN BIN SULONG)

HAJI MUHAMMAD SUHAIZAN BIN SULONG
Pensyarah
Fakulti Teknologi Maklumat dan Komunikasi
Kolej Universiti Teknikal Kebangsaan Malaysia
Karung Berkunci 1200
Ayer Keroh, 75450 Melaka

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DEDICATION

To My Family and Friends

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During the period of preparing Project I with sweat and tears, many obstacles had been experienced. Fortunately, all the problems occur had been able to be solved by a helping hand and sincere heart of many people. Hence, I would like to express my warmest appreciation to each single person that contributes through the progress of preparing Project I.

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ABSTRACT

In conjunction with the rapid development of Malaysia, the neat plan of infrastructure had been implement. With the booming economy, comes increased car ownership and traffic congestion. In that case, the government has taken a brilliant initiative to alleviate this escalating problem with the implementation of the Light Rail Transit System or LRT. However, the information towards these facilities among public is still shallow. Realizing this scenario, Integrated KL LRT Travel Guide system is to be developing as a final thesis. KL LRT Travel Guide focuses on the transportation domain specifically PUTRA-LRT, Monorail and STAR-LRT. Basically the project is an enhancement of the existing system that still provides insufficient information. The problems of the previous system is lack of knowing the interchange point before reach the destination, no information provided on time required from one station to the other station, unavailable data about cost required for each station and the operating hours for each LRT services and only provide information for PUTRA-LRT. From the research done, the data on operating hours during peak and off-peak hours, map on PUTRA-LRT station route, STAR station route and also Monorail station route, data on time estimate and prices to reach each station required are gain. The new system will improved the existing system where it not only display the time estimate, route map and price estimate but also operating hours, peak hours frequency and off peak hours frequency.

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ABSTRAK

Memandangkan pembangunan yang pantas di Malaysia, perancangan infrastruktur yang teliti dilaksanakan. Dengan perkembangan ekonomi yang pesat, pemilikan kereta serta kesesakan jalanraya juga secara tidak langsung telah semakin meningkat. Bagi mengatasi permasalahan yang semakin meningkat ini, Sistem Transit Aliran Ringan atau LRT telah dilaksanakan. Walaubagaimanapun, informasi mengenai kemudahan ini dikalangan orang awam masih lagi cetek. Menyedari senario yang berlaku, system 'LRT Travel Guide' akan dibangunkan sebagai tesis akhir. Integrated KL LRT Travel Guide merangkumi PUTRA-LRT, Monorail and STAR-LRT. Pada umumnya, projek ini adalah penambahan ciri dari sistem sedia ada yang masih kekurangan maklumat. Permasalahan yang timbul bagi sistem yang sedia ada ialah ketiadaan maklumat berkenaan stesen pertukaran sebelum pengguna sampai ke destinasi tujuan, tiada maklumat disediakan mengenai jangkamasa diperlukan dari satu stesen ke stesen yang lain, ketiadaan data berkenaan kos diperlukan bagi setiap stesen dan masa operasi bagi setiap khidmat LRT dan hanya menyediakan khidmat untuk PUTRA-LRT. Melalui kajian yang dijalankan, data berkenaan masa operasi dalam masa puncak dan luar masa puncak, peta untuk PUTRA-LRT, STAR dan Monorail, data bagi jangkamasa dan harga bagi setiap stesen diperolehi. Sistem baru ini akan memperbaiki sistem yang sedia ada dimana sistem ini bukan sahaja memaparkan jangkamasa dan harga malahan juga masa operasi, masa operasi puncak dan masa operasi luar puncak.

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LIST OF ACRONYMS

ACRONYM	DESCRIPTION
IKLTG	Integrated KL LRT Travel Guide
OOAD	Object-oriented Analysis and Design
ERD	Entity Relationship Diagram
UML	Unified Modeling Language

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CHAPTER I

INTRODUCTION

1.1 Project Background

In this era, Malaysia had developed rapidly and the proper infrastructure especially public transportation had already setup to facilitate the citizen to go to certain destination without hassle. The latest public transportation is Light Rail Transit (LRT) that consists of STAR-LRT, PUTRA-LRT and also Monorail. This transportation exists parallel with the technology breakthrough and development.

However, the number of citizen that utilizes this transportation is still under expectation as they still lack with information about this transportation services. They have to ask other people that have experience using this transport, ask people in charge at LRT counter that maybe also not quite sure about this transport information or make research first to plan their travel path. This will consume time, and the worst of all they waste money when they lost directions. In order to provide information required by public, traveler and also tourist that intended to use this facilities, KL LRT Travel Guide is develop as an enhancement system that able to improved the existence system to help the target user, which is public to gain visible information they wish to.

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1.2 Problem statements

There is various type of public transportation available at Kuala Lumpur nowadays. Government had spend an enormous amount of money to provide public transportation especially in LRT development and also in promoting public transportation to be the main preference for the citizen as their daily transportation to reduce the traffic congestion happened at Kuala Lumpur. However, the number of people that interested to use LRT as their public transportation is still unsatisfied. The previous system still lack of details information that might be crucial to be known by the user, to facilitate them to use this transportation. The problems in the previous system are:

- **The interchange point before the user arrived at the destination is not mention.**
  The public or tourist that plan to go to certain destination may not know where is interchange point of station that they must go through from one location to another location before they able to arrived at the intended destination they wish to.

- **Lack of information on duration of time required to arrive at the station.**
  The public, traveler or tourist that plan to use this transport might need to know the estimated duration of time required to arrived at the intended station to plan their journey wisely.

- **The system lack of information on the operating hours of LRT services availability together with peak and off-peak LRT frequency.**
  The public must browse through articles on LRT services to know the operating hours, peak and off-peak LRT frequency as this information is not stated by the previous system.

- **The existence system only offered information on PUTRA-LRT services.**
  After recognized all problems experience by the public and tourist that want to use LRT as public transportation to go to specific destination using the previous system, the approach used to solve this problem are:

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- After user inserts the boarding location and the alight location, the system will provide data all station interchange required to go through until the user arrived at the intended location.

- The user will be able to know the duration estimated to arrive at the intended station.

- The cost required to arrived at required station will be inform to the user as the system tract the boarding station until the arrival station.

- The system will view the operating hours and also frequency of availability during peak hours and off-peak hours.

1.3 Objectives

KL LRT Travel Guide is an informative system that is develops in order to achieve certain objectives and goals. The objectives of this system are:

- To improved the previous system by providing more detail information required by the public, traveler or tourist that used LRT services such as the station interchange before arrived at specific destination, time estimated to arrive at the intended station, the operating hours of LRT availability with the frequency during peak hours and off-peak hours and also price required to be pay for the journey.

- To simplify the travel planning for the public that want to use LRT as the public transportation to go to the destination required.

- To provide an essential service to the public, traveler and tourist on one of fastest and comfort public transport via web.

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- To promote and attract public, traveler and tourist to use LRT as the main transport and achieved government goals to overcome traffic problems indirectly.

- To give interactive way to the public, traveler and tourist to plan their journey using LRT as public transport.

1.4 Scopes

The scopes of the project are:

- The domain of this system is transportation area specifically LRT.

- The target user is the public, traveler or tourist that intended to use LRT services.

- The system only gives information on LRT whether PUTRA-LRT, STAR-LRT and Monorail but not the other public transportation.

- The system is not specifically for certain organization but used for public purpose.

- The system not considering walking distance required for any interchange.

- The system will inform user about the station interchange, the boarding station and arrival station, the operating hours and frequency during peak and off-peak hours, the duration of time estimated to arrive at each station and the price required for each station.

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1.5 Project significance

KL LRT Travel Guide is enhancements of the existing system that develop to overcome the problems occur among the public transportation user. The society which use public transport that usually have problems about how to go the intended destination and which station they should go in a short while without required them to face and ask people around or the staff in charge at the counter booth that might explain nebulous or vague directions that yet will certainly confusing or not precise. It also improved the existence system that have insufficient information about LRT services in terms of station interchange, the operating hours and frequency during peak and off-peak hours, the duration of time estimated from the boarding station until arrival and the price required for the journey.

The existence of this system will actually give huge contribution to provide the information required to the community, traveler or tourist that used public transportation specifically LRT without consume too much time. Without this system, the user have to find out the information one by one by asking people that experience on using this transport, make research by visit the portal available, take pamphlets that list out the station or browse through existence system that still insufficient in information available, which actually unreliable for the individual that don't have basic knowledge on places to be heading before arrived to the destination.

The intelligence features benefit the public to gain precise information to plan their journey, cost involves and also time estimate. By using this system the user feels much confidence to be at certain destination they wish to punctually within expected time and these criteria is important and critical for the carrier individual. Indirectly, the government aim to attract society especially Kuala Lumpur citizen to choose public transportation specifically LRT as daily transportation to avoid traffic congestion will became a reality.

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