

## TESIS APPROVAL STATUS FORM

JUDUL: KIOSK SYSTEM: JABATAN PENDIDIKAN NEGERI KELANTAN (JPN)  
INFORMATION SYSTEM

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Saya NORSHAFINI MD. SAIDAN

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Alamat tetap :  
Lot 2514, Kg. Kota Gaung,  
Jalan Pasir Mas Salor,  
15150, Kota Bharu,  
Kelantan Darul Naim.  
Tarikh : 21 Oktober 2004

  
(TANDATANGAN PENYELIA)

Cik Sabrina Ahmad

Tarikh : 21 Oktober 2004

**KIOSK SYSTEM: JABATAN PENDIDIKAN NEGERI KELANTAN (JPN)  
INFORMATION SYSTEM**

**NORSHAFINI MD. SAIDAN**

This report is submitted in partial fulfillment of the requirements for the  
Bachelor of Information & Communication Technology  
(Software Development).


**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY  
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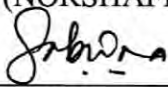
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STUDENT :  Date : 21/10/2004  
(NORSHAFIQ MD. SAIDAN)

SUPERVISOR :  Date : 21/10/04  
(MISS SABRINA AHMAD)

## **DEDICATION**

This report is dedicated to my beloved parents who taught me independence and the difference between right and wrong. I am privileged to have had you as my parents.

And also to all my families for their support, encouragement and careful...

## ACKNOWLEDGEMENTS

*Thanks to God because I have completed my project, PSM II. This project takes about fifteen weeks (15) period of time. This success cannot be achieved without the support, encouragement, spirit and co-operation from everybody involved either directly or indirectly.*

*Throughout these fifteen weeks, I acquired lots of knowledge and experience that will build a stronger basis in developing the kiosk system. Thus, I would like to convey my sincere gratitude to those who gives cooperation, suggestions, comments, support, encouragement, spirit, even friendship and understanding to help me completed this project.*

*First and foremost, I would like to especially thank to KUTKM for introducing such a beneficial project to ICT students in order to let them learn more and gain more experiences in preparing this project.*

*Secondly, I wish to say thank you to my supervisor, Miss Sabrina Ahmad. She is so willing to give the accurate information once I faced the doubts especially about the format and requirements of this course. Besides, I also like to thank Mr. Ahmad Shaarizan Shaarani for guiding and giving detailed explanation about the contents of this report, especially the contents that related with Multimedia major.*

*With this golden opportunity, I would like to express my deepest appreciation and gratefulness to the interviewees, Mr. Hanapi Abdullah (from Unit Maklumat, JPN Kelantan) and cooperation from all staffs (from Virtual Malacca, Incubator, K-Economy, Malacca), who were willing to spend precious time for my interviews and questionnaires.*

*Last but not least, I would like express thank to my classmates and all friends for advices, support, contribution, cooperation and giving a hand to complete this project. And finally, I want to say thanks to my parents and all families member for their support, acknowledgement and careful*

## ABSTRACT

PSM 2 report which has been fully completed was under the charge and supervision of Cik Sabrina Ahmad, Chief of Software Engineering department in KUTKM. I have chosen an information system which is a kiosk system as a proposal for my bachelor's project. This system is developed using various software including multimedia software such as Macromedia Flash, Swish, Adobe Photoshop and others. It can be used by the user from all groups and is located in an organization, i.e. Jabatan Pendidikan Negeri Kelantan (JPN).

Generally, this system contains 23 modules according to the total of all units provided in JPN organization. Main objective of this information system is to provide various information connected with this organization include information of each unit in this organization, location of each unit and other extra information. This system is developed using mother tongue language, Malay version. This is to give suitability to the users using this system. Among other objectives are to develop a user-friendly system, save user's time and energy and so on. Touch screen has been chosen as one of computer tool which is very suitable to be used in the kiosk system. The users only have to touch the screen and information needed by the users will be displayed immediately.

This report consists of six chapter where is chapter 1 will discuss about the introduction of the system include the problem statements, objectives, scope and contribution. Chapter 2 will discuss about the studies which have been done in a few organization include JPN organization. Project planning and methodology which have been chosen will be explained in the next chapter which is chapter 3 while chapter 4 will explain about analysis study which has been done.

Chapter 5 will discuss about system design phase where is the storyboards have been used to describe or show the flow of this system form one interface to another interface. Chapter 6 will discuss about the implementation phase which all elements of multimedia is combined in this system to make this system more attractive. Next chapter is proceeding with testing phase, i.e. in chapter 7. Chapter 8 is ended with the summary about this project.

With existence of this system, indirectly, this system can introduce a new and sophisticated system in that organization. It is also can gives some exposure to the users to the computerization field.

## ABSTRAK

Laporan PSM 2 yang telah berjaya disiapkan sepenuhnya ini adalah di bawah pengawasan dan penyeliaan Cik Sabrina Ahmad, Ketua Jabatan Kejuruteraan Perisian KUTKM. Saya telah memilih sebuah sistem informasi iaitu sistem kiosk untuk dibangunkan sebagai projek sarjana muda saya ini. Sistem ini dibangunkan menggunakan pelbagai perisian termasuklah perisian multimedia seperti Macromedia Flash, Swish, Adobe Photoshop dan banyak lagi. Ianya boleh digunakan oleh semua pengguna dari semua golongan dan akan ditempatkan di sebuah organisasi iaitu Jabatan Pendidikan Negeri Kelantan (JPN).

Pada umumnya, sistem ini mempunyai sebanyak 23 modul iaitu mengikut jumlah kesemua unit yang terdapat di organisasi JPN ini. Objektif utama sistem maklumat ini dibangunkan adalah untuk menyalurkan pelbagai maklumat berkaitan dengan organisasi ini termasuklah maklumat setiap unit yang terdapat di dalam organisasi ini, lokasi setiap unit dan maklumat sampingan lain. Sistem ini akan dibangunkan menggunakan satu bahasa perantaraan, bahasa ibunda iaitu Bahasa Melayu. Ianya adalah untuk memberi keselesaan kepada para pengguna menggunakan sistem ini nanti. Antara objektif lain adalah seperti membangunkan sebuah sistem yang bersifat mesra pengguna, menjimatkan masa dan tenaga para pengguna dan sebagainya. Skrin sesentuh telah dipilih sebagai salah satu peralatan komputer yang paling sesuai digunakan untuk sistem kiosk ini. Para pengguna hanya perlu menyentuh skrin dan maklumat yang pengguna kehendaki akan dipaparkan dengan cepat.

Laporan ini mengandungi 6 bab di mana bab 1 akan membincangkan mengenai pengenalan kepada sistem termasuklah pernyataan masalah, objektif, skop, sumbangan/kepentingan projek dan juga hasil yang dijangkakan. Bab 2 pula akan membincangkan mengenai kajian – kajian yang telah dilaksanakan di beberapa buah organisasi termasuklah organisasi JPN. Perancangan projek dan metodologi yang telah dipilih akan diterangkan di dalam bab seterusnya iaitu bab 3 manakala bab 4 akan menerangkan mengenai kajian analisis yang telah dijalankan.

Bab 5 pula akan membincangkan mengenai fasa rekabentuk sistem yang akan dibangunkan di mana kaedah papan cerita telah digunakan bagi menunjukkan perjalanan sistem ini dari satu antaramuka ke antaramuka yang lain. Bab 6 akan membincangkan mengenai fasa implementasi di mana kesemua elemen-elemen utama multimedia diserapkan di dalam sistem ini bagi menjadikan sistem ini bertambah menarik. Bab seterusnya diteruskan dengan fasa pengujian iaitu di dalam bab 7. Bab 8 diakhiri dengan rumusan mengenai projek yang dijalankan ini termasuklah kelebihan dan kelemahan sistem ini turut di terangkan. Dengan adanya sistem ini, secara tidak langsung, sistem ini nanti dapat memperkenalkan satu teknologi terbaru dan tercanggih di organisasi tersebut. Ianya juga dapat memberi pendedahan kepada para pengguna terhadap bidang pengkomputeran.

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## LIST OF ACRONYMS AND ABBREVIATIONS

JPN	– Jabatan Pendidikan Negeri Kelantan
MPKB	– Maktab Perguruan Kota Bharu
UPSR	– Ujian Penilaian Sekolah Rendah
PMR	– Penilaian Menengah Rendah
SPM	– Sijil Pelajaran Malaysia
STPM	– Sijil Tertinggi Pelajaran Malaysia
KUTKM	– Kolej Universiti Teknikal Kebangsaan Malaysia
UNITAR	– Universiti Tun Abdul Razak
ICT	– Information and Communication Technology
SDLC	– System Development Life Cycle
TQM	– Total Quality Management
IT	– Information Technology
SPPP	– Sektor Pengurusan Perkhidmatan Pendidikan
SPPK	– Sektor Pengurusan Pembangunan Kemanusiaan
SPA	– Sektor Pengurusan Akademik
SPS	– Sektor Pengurusan Sekolah
SPPIM	– Sektor Pengurusan Pendidikan Islam dan Moral
PPD	– Pejabat Pendidikan Daerah
SQA	– Software Quality Assurance

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## CHAPTER I

### INTRODUCTION

#### 1.1 Preamble/Overview

This kiosk system has been chosen in completing my PSM 2 project. This system is a stand-alone system and only can be accessed by all staff at Jabatan Pendidikan Negeri Kelantan (JPN) and also the outsiders. This system contains all information needed about the Jabatan Pendidikan Negeri Kelantan (JPN) such as the history of JPN, the organization chart of each unit, all units in JPN, the site map and other related information in which are useful to the outsiders and organization members. This system is developed using fully in Malay language as Malay language is the mother tongue language frequently used daily. This language is suitable to be used by all level without any obstacles or limitation.

The main objective developing this system is to give information to the outsiders about this organization. Jabatan Pendidikan Negeri Kelantan plans to make this information system, as a part of the kiosk in which will be located in front of the office. The staff and also the visitor can refer to this information system for any information. They can also get information about the location of each unit in JPN Kelantan.

Generally, this organization is divided into some different sectors, which consist of several units. The sectors are “Sektor Pengurusan Perkhidmatan Pendidikan”, “Sektor



Pengurusan Pembangunan Kemanusiaan”, “Sektor Pengurusan Akademik”, “Sektor Pengurusan Sekolah”, “Sektor Pengurusan Pendidikan Islam & Moral”, and “Pejabat Pendidikan Daerah”. Each sector has between two to seven units and among them is “Unit Maklumat”, “Unit Naik Pangkat”, “Unit Perjawatan”, “Unit Perkhidmatan, Latihan&Tadbiran”, “Unit Pembangunan”, “Unit Pendidikan Pencegahan Dadah”, “Unit Hal Ehwal Murid” and others. Each unit actually has different environment, different activities and different history or background. All of this information will be included in this system to give some knowledge to the user.

There are many approach techniques which is used in developing this kiosk system. Among them are 3D or 2D animation technique, video and audio technique, static technique, virtual technique and others. For this system, combination of three techniques has been chosen that are the 3D technique as the logo or trademark of this package, virtual technique and static technique for the other part of this kiosk. Virtual technique also have been used in developing this system to make this system looks more attractive and user-friendly.

This system development is using the Macromedia Flash 5.0 as the platform. The software is easy to use and provided many user-friendly tools. Besides that, the other software used is Adobe Photoshop 7.0 for editing pictures and Macromedia Swish to build an animation. This system is hopefully could benefits the outsiders and the people inside the organization itself.

## **1.2 Problem Statement(s)**

In developing a kiosk system of high quality and technology, a few studies have been conducted. From these studies, a few problems were able to be identified and can

assist to facilitate the process of development system later in order to fulfill the taste of the users. Among the problems are as follows:

**a) Difficulty in locating a unit in Jabatan Pendidikan Negeri Kelantan.**

The users always faced with the problems to search for the location of a unit in JPN organization. This is because they are confused with the structure of the building occupied by JPN and MPKB. To overcome this problem, a kiosk system is developed quipped with a location map. This location map will portrays each building occupied by JPN and the users can choose the location of the unit they want to deal with. To make this system to be more interactive, some multimedia elements are used to build this location map. With the availability of the location map, the users can search for each unit in JPN in a shorter time because the users do not have to go from one building to another to settle their affairs.

**b) The users have to take a longer time to obtain information on JPN organization.**

The users have to wait for a longer time to get various information of JPN or each unit in JPN. This problem always occurred especially to students who want to do their research or case study in this organization. They have to go to one unit to another unit to get all information needed. This will waste their time and energy. Therefore, this system will be displayed all information of JPN and units. The user also can get all information needed precisely and quickly. Among information which will be displayed are organization chart, background of each unit, function of each unit, services, vision, mission and others. Other reference information are statistic no SPM, STPM, PMR and UPSR, total number of secondary and primary schools, Chinese and Tamil schools, contact person of each unit with their photos and others. This information can be accessed by suing this system without referring to the staff forms each unit. These facilities can save their energy and time.

- c) **Less exposure about latest technology in our country and also IT illiteracy problem among the staff and students.**

The users consist of students and staffs of this organization have less exposure to the technology expansion in Malaysia especially about the computerization field either in school or office. This is because they are still using working system manually from computerization system. This problem will then increasing IT illiteracy problem among them. To solve this problem, a kiosk system is developed in this organization. Beside provides various information, this system also will perform a sophisticated system to the user. Indirectly, the users who use this system will get a basic skill of computer. As the kiosk system do not have any limitation and can be used by all users, students below 12 years old can also access this system. This is also one of strategic to give an exposure to the children in computerization field.

### 1.3 Objectives

Following are the main objectives of this project which have been developed during this semester.

- **To provide many information about the organization of JPN Kelantan.**

The outsiders and also the staff of JPN can get more information about all unit under JPN Kelantan such as the organization chart of each unit, the function of each unit, the location of each unit and others so that the user didn't go to the wrong location as this organizations contains three big buildings.

- **To develop an educational system**

This system also will provide some information about each unit in JPN which is the history of each unit or department in this government organization. As this organization

is situated beside the one of primary school, this kiosk system can attract the students to use it and at the same time, the students will be exposed to the computerization field.

- **To develop a user-friendly system.**

This kiosk system will provide some user-friendly environment such as some navigation button and interactive interfaces.

- **To save user's time and energy.**

The users do not have to waste their time to find the location of the wanted unit and their energy to go to one unit to another unit in JPN organization.

#### 1.4 Scopes

At this moment, this system is being developed for Jabatan Pendidikan Negeri Kelantan (JPN) and do not have user's limitation. The duration to load the first page will not take more than 10 seconds. This system can be used and accessed by all users who come and visit this organization. This system is developed by using Macromedia Flash 5.0 to build application of this system, and Adobe Photoshop 7.0 for editing the images. The main equipment that needs to develop this application is touch screen. Other equipments are monitor, CPU, mouse, keyboard and monitor. This system is divided into 23 modules according to unit categories. Each module displays a short description about the unit including the history, background, unit members, the contact person and others.

## 1.5 Contributions

This kiosk project can be used by the JPN organization as there is will be situated in front of the main building of JPN. So that, any problem cannot be faced by the outsiders especially from other countries or states in Malaysia. Before this, the visitors or outsiders have to ask the staff in JPN about the units which they want to visit. This situation will causes many problems to the outsiders and also the staff such as misunderstanding problem, wasting problem and others.

This information system enables the users to search all information needed by them easily and quickly. All searching can be done precisely and efficiently according to specifications needed by the user. Any form of searching information cannot be altered as it is only for display. This information system is capable to give the direction of the location for each unit.

According to the users that have been interviewed, the JPN organization wants a system that will interact interactively with the user. Instead of this, this organization also wants a system that will make the user easy to use the application, understand the language used in the application, understand the visualization shown in the screen and can make profit to the organization. With this strategy, JPN Kelantan will be widely known not in Malaysia but also abroad and help to improve the organization's profit.

Kiosk is today's high performance salespeople." They're capable of working 24 hours per day which is seven days a week, and they always remember to mention the product's best features. Because of the kiosk's interactive capabilities, they typically hold the visitor's interest longer. The capability of kiosk is it can give the users control

of the environment. By simply touching a computer screen, the users can access information about the company or services offered.

This kiosk system will become a highly practical & friendly system & deliver information easily & inexpensively. It also has the capability to expertly present, display, demonstrate, and test. Among the advantages of this kiosk project are as below:

- a) Designed for common user
- b) Highly interactive
- c) Unlimited information on finger tip.
- d) Replaceable at convenient spots.
- e) Appealing Audio Visual presentation.
- f) Can be updated from time to time.
- g) Can be used for information sourcing
- h) Round-the-Clock availability of Information.

For this organization, the kiosk is worked as virtual information center for corporate to provide information like company profile, products/services, statistics, departments, news, projects at their corporate office reception. Touch screen has been chosen to make this kiosk system functions properly. It has been chosen because of some reasons. Following are the reasons why touch screen has been chosen as the best hardware in developing this system.

- 1) To provide an interactive, sophisticated and reliable system.
- 2) To exposed a new technology method to the outsiders.

Touch screen technology and full color graphics offer the most intuitive and user-friendly computer interface possible. Besides that, the outsiders also can get more

exposure especially in computerization field. Physically, compared the touch screen with other hardware such as light pen, possibility to loose the pen which is used in this system can be existed. By using the touch screen, the user can operate this system automatically by touching the screen and do not have to use other materials or other hardware such as pen and mouse. This system also can be a user-friendly system to the outsiders whereby all users including the students among nine to twelve years old also can use this system.

## **1.6 Expected Output**

After all phases have completed on time especially the implementation phase, this system is expected to get attention from the outsiders to use it in order to get the guidance and reference when entering the JPN organization. This system also is expected to be an information center because of their features and function, which 90% of this system provides much information about the JPN organization including the sectors, units, staffs, organization chart, location and others. As this system is using the latest technology that is touch screen, this system is expected to be a user-friendly and sophisticated system. Otherwise, it contains various information in each interface which is connected between one interface with others. It is linked by suitable button provided in this system. From the survey and analysis research, with combination of multimedia elements in this system, all people including children (9-12 years old), youngest, student, staff, adult and others is expected to use this system easily with the correct ways without any problems.

## 1.7 Conclusion

As conclusion, this chapter have discussed about the beginning of system development including the overview of this project, problem statements identification during the case study conducted, the main objectives of this system, system scopes, project contributions and expected result or output which can get from complete system. In general, this kiosk system provided all the information about JPN organization which is performed in Malay Language. This information is includes the background of JPN, units and sectors in JPN and others. This system is built after all case studies activities are done which many problems have been identified from the activities.

This chapter also has stated the objectives of this system which consists of four main objectives. These objectives are identified to make sure this system achieved it and fulfilled the customer's needs. This system also does not have user's limitation which allowed the users in all categories to use it. So that, all people including the staff and visitors in JPN can accessed the information provided in this kiosk system easily without any obstacles or problems. It is also more focused on 23 modules which each module contain information of each units located in JPN organization. Touch screen has been chosen to operate this system as it is the best hardware in developing a kiosk system. According to the interview session with an information officer of JPN, this system will be located in front of main office JPN building in order to facilitate the users to find and use it. This system is expected to be an information center at JPN in providing information such as organization profiles or background, services, academic info, programs involved, locations, units, sectors and others.