

UMP ONLINE SHOPPING SYSTEM

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SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Computer Science (Software Engineering).

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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Thesis submitted in fulfillment of the requirements
for the award of the degree of
Bachelor of Computer Science (Software Engineering)

Faculty of Computer Systems and Software Engineering (FSKKP)

UNIVERSITI MALAYSIA PAHANG

ACKNOWLEDGEMENTS

First of all, I would like to express my thankfulness to Allah S.W.T for every single gift and strength that He had given to me throughout the entire development of this thesis. Besides, the effort I have taken to complete this project will also not possible without the kind, support and help from many individuals and lecturers.

I would like to sincerely and heartily thank my supervisor, Dr Mohd Faizal Bin Ab Razak for the support and guidance showed to me throughout the documentation. I am sure it would have not been possible without his help. Besides, I would like to thank my course mates in helping me out with their abilities.

In addition, I would like to show my greatest appreciation to my parents who have been giving me warm encouragement and emotional support during this hardest period of time. Thank you for your prayers for my healthy and strength in doing this project. Last but not least, I would like to express my gratitude to all FSKKP's lecturers and my friends that always support and give spirit and also advice. I really appreciate all who were involved directly and indirectly in this project.

ABSTRACT

The evolution of Internet has created a paradigm shift of the traditional way people shop. Nowadays, online shopping is one of the most convenient and best method considered for shopping. Online shopping has offered many advantages as well as disadvantages for the online shoppers. The online shoppers need to be very careful when choosing and trading online. An online shopping system that is more secured, reliable, easy to use and user friendly need to be developed in order to resolve this problem. The UMP Online Shopping System was developed to help UMP communities and the nearest community in Kuantan in purchasing and promoting products and services using the online platform. This system would improve the effectiveness and safety when trading online as the user can know the information of online merchants before meeting them in the specified safe place in UMP and Kuantan. The user of this system is UMP communities which include students, lecturers, staffs and people living in Kuantan. The UMP Online Shopping system will be develop using PHP, HTML, MySQL and JavaScript. PHP has a number of unique features and specific functions as well which will allow web developers to write dynamically generated pages quickly and easily. HTML provides building blocks to all websites, particularly text and images. JavaScript is capable of rich user experience for browser-based applications. UMP online shopping system requires database in order to store information about the products that will store pricing, description, images and details of the number of each products and services that are available. PHP and MySQL are used for communication between website and the database management systems (DBMS). The methodology used in this project development is using Rapid Application Development (RAD). This UMP Online Shopping system will be used to manage selling and buying products and any services between user and admin which required a working internet connection for it to running properly.

ABSTRAK

Evolusi Internet telah mewujudkan peralihan paradigma cara tradisional orang berbelanja. Pada masa kini, membeli-belah dalam talian adalah salah satu cara yang paling mudah dan terbaik untuk membeli-belah. Membeli-belah dalam talian menawarkan banyak kelebihan serta kekurangan untuk pembeli dalam talian. Pembeli dalam talian perlu berhati-hati apabila memilih dan berdagang dalam talian. Sistem membeli-belah dalam talian yang lebih selamat, boleh dipercayai, mudah digunakan dan mesra pengguna perlu dibangunkan untuk menyelesaikan masalah ini. UMP Online Shopping System dibangunkan untuk membantu komuniti UMP dan komuniti terdekat di Kuantan dalam membeli dan mempromosikan produk dan perkhidmatan menggunakan platform dalam talian. Sistem ini akan meningkatkan keberkesanan dan keselamatan apabila berdagang secara dalam talian kerana pengguna dapat mengetahui maklumat pedagang dalam talian sebelum bertemu mereka di tempat selamat yang ditetapkan di UMP dan Kuantan. Pengguna sistem ini adalah komuniti UMP yang meliputi pelajar, pensyarah, kakitangan dan orang yang tinggal di Kuantan. Sistem Membeli-belah Online UMP akan dibangunkan menggunakan PHP, HTML, MySQL dan JavaScript. PHP mempunyai beberapa ciri unik dan fungsi tertentu juga yang membolehkan pemaju web menulis halaman yang dihasilkan secara dinamik dengan cepat dan mudah. HTML menyediakan blok bangunan ke semua laman web, terutamanya teks dan imej. JavaScript mampu pengalaman pengguna yang kaya untuk aplikasi berasaskan pelayar. Sistem membeli-belah dalam talian UMP memerlukan pangkalan data untuk menyimpan maklumat mengenai produk yang akan menyimpan harga, keterangan, imej dan butiran bilangan setiap produk dan perkhidmatan yang tersedia. PHP dan MySQL digunakan untuk komunikasi antara tapak web dan sistem pengurusan pangkalan data (DBMS). Metodologi yang digunakan dalam pembangunan projek ini menggunakan Pengembangan Aplikasi Rapid (RAD). Sistem Membeli-belah Online UMP ini akan digunakan untuk menguruskan penjualan dan pembelian produk dan sebarang perkhidmatan antara pengguna dan admin yang memerlukan sambungan internet yang berfungsi untuk berjalan dengan betul.

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LIST OF ABBREVIATIONS

BPP	Buyer Protection Program
CMS	Content Management System
DBMS	Database Management System
HTML	Hypertext Markup Language
PHP	Hypertext Preprocessor
RAD	Rapid Application Development
SDLC	Software Development Life Cycle
SQL	Structured Query Language
UAT	User Acceptance Test

CHAPTER 1

INTRODUCTION

1.1 Introduction

Since the emergence of the modern technology, Internet offers people more and more convenience. With the development of modern technology, people can do a lot of things without going out such as paying bills, watching movies, study online and so on. The development of Internet has created a paradigm shift of the traditional way people shop. Nowadays, online shopping is the one of the most convenient and best method considered for shopping. (Katawetawaraks & Wang, 2011) According to the latest statistic, Malaysians use the Internet broadly for news, research, social networking and online shopping. Furthermore, based on the survey conducted, the highest penetration of online shoppers supporting a business worth RM 25 billion with 19 million Malaysians using the Internet and it is expected to double by the year of 2020. (“Subtle dangers lurkin behind online transactions - Letters _ The Star Online,” 2018.) Many people choose online shopping because it offers many convenience as they can visit web stores, review and compare dozens of stores and products at once that offer better prices in a shorter time.

However, online shopping also has some disadvantages such as the additional cost and waiting time that company’s takes to deliver the product. A product can take up to weeks to deliver the product which can be frustrating factor for those who do not have patience and time to wait. Besides, the price on online store is usually low but the delivery charges of the product make the charges similar or higher than local shops. Insecure shopping is the main disadvantage of online shopping. Insecure shopping refers to the scams and frauds by gaining and access the personal and financial details of the customers or buyers and exploit it in a terrible way which can become a cause for the loss of the

money. (Craiglist, 2017) According to an Internet Scams study, the top three scams in Malaysia are “work from home” fraud (30%), internet auction scams (22%) and online dating scams (20%). Based on a survey by telecommunication company, Telenor Group, Malaysia is the most vulnerable country to internet scams in this region that leads among the countries surveyed which included India, Singapore and Thailand with at least 46 per cent of respondents from this country having admitted to being a victim of Internet scams. (Tobergte & Curtis, 2013) Therefore, online shopping frauds and scammers is the most critical event that has terrified many online buyers in Malaysia.

Online shopping has offered many convenience as well as disadvantages for the online buyers. The online buyers need to be very careful when choosing and trading online. In order to solve this problem, I have proposed a UMP online shopping system as an online platform for online buyers especially UMP students, UMP staff and people living in Kuantan to shop in a convenience, user friendly and safe way. The UMP online shopping system would offer UMP communities and the nearest community to shopping in more secured, reliable, easy to use and save a lot of time as the products and services is available in a nearby range. In addition, the UMP online shopping system would help the users to generate income and create the online business opportunity by promoting their product in the provided platform. Hence, the UMP online shopping system is the best method for UMP communities and the nearest community to shopping and creating online business opportunity.

1.2 Problem Statement

There are three problem statement that is identified which is many cases of online scammers and frauds, limited opportunity for UMP online business and the existing online shopping system does not ensure the safety of customers during a trading.

- i. Nowadays, the growing threat of online scammers and frauds is a real concern for online merchants and their customers. The online scammers and frauds can cause a huge loss of money when they get access to personal and financial details of customers. Scammers are getting wiser and taking authority of new technology, new products or services and create believable stories with major events to convince customers to give them their money or personal details

Therefore, it is important to make right precautions in developing an online shopping system to protect against online scammers and frauds.

- ii. Apart from that, other problem that arise is limited opportunity for UMP online business. According to my research, I have found that there is some weakness of the existing system in promoting online business in UMP. For instance, UMP portal is often being used as a platform to promote any online business. However, the existing system is not so effective as the advertisement in the UMP portal will remain unnoticed until the students click and view it.
- iii. Lastly, the identified problem is the existing online shopping system does not ensure the safety of customers during a trading. According to my research, I have found that sometimes customers need to meet up with the online merchants or sellers in order for them to get their products or services. Thus, it is important for the customers to know a detailed information about the online merchants or sellers as a safety precaution. On the other hand, the proposed system, UMP online shopping system will improve the safety of user with the necessary and reliable features.

All of these problem statement can be summarized as shown in the Table 1:

Table 1 Problems in Online Shopping

No	Problem	Description	Effect
1	Online scammers and frauds	The online scammers and frauds can cause a huge loss of money when they get access to personal and financial details of customers	Scammers are getting wiser and taking authority of new technology, new products or services and create believable stories with major events to convince customers to

REFERENCES

- Automated Architecture. (2005). Rapid Application Development, 1–5.
- Christenson, P.(2006). PHP(HypertextPreprocessor)Definition. Retrieved from <http://techterms.com/definition/php>
- Craiglist. (2017). Online shopping pros and cons, (August), 3–19. Retrieved from <https://herrickdl.org/sites/default/files/documents/onlineshopping.pdf>
- David, M. (2015). Learn more about the Android Studio IDE from Google. *TechTarget*. Retrieved from <http://searchsoftwarequality.techtarget.com/feature/Learn-more-about-the-Android-Studio-IDE-from-Google>
- Development, R. A., Do, W., Need, Y., History, T., & Aspects, E. (2000). What is Rapid Application Development?
- Katawetawaraks, C., & Wang, C. L. (2011). Online Shopper Behavior: Influences of Online Shopping Decision. *Asian Journal of Business Research*, 1(2), 66–74. <https://doi.org/10.14707/ajbr.110012>
- Lelong. (2018).
- Malaysia's Largest Marketplace -Mudah. (2018).
- Naz, R., & Khan, M. N. A. (2015). Rapid Applications Development Techniques: A Critical Review. *International Journal of Software Engineering and Its Applications*, 9(11), 163–176. <https://doi.org/10.14257/ijseia.2015.9.11.15>
- Subtle dangers lurking behind online transactions - Letters_ The Star Online.
- (2018).
- techterm.com. (2007). MySQL Definition. Retrieved from <http://www.techterms.com/definition/mys>
- ql The Four Phases of RAD | RAD approach.
- (2017).

Tobergte, D. R., & Curtis, S. (2013). Malaysia is the most vulnerable country to internet scams in this region. *Journal of Chemical Information and Modeling*.
<https://doi.org/10.1017/CBO9781107415324.004>

UMPportal. (2019).