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ABSTRACT

This paper presents the UMP Business Application as an application that can work in any mobile devices that runs on Android. Nowadays, everyone is using mobile phone. And from my observation, students from University Malaysia Pahang love to do business. So, I find these two criteria are wise enough for me to create an app for UMP students as a platform for them to do their business activity, buying and selling stuffs online. I also find that students more tends to use wrong medium to promote their business such as e-Comm. Thus, it makes me more passionate in developing this mobile application.

This paper investigates about problem that occurs nowadays and finally it proposed the UMP Business Application to prevent this problem from occurs again. I hope that this application can ease UMP student's business activity and everyone is happy with it.

ABSTRAK

Projek ini membentangkan tentang pelaksanaan UMP Business Application sebagai satu aplikasi yang mampu untuk berkerja di mana-mana peranti mudah alih yang menggunakan sistem operasi Android. Dewasa kini, semua orang mempunyai peranti mudah alih mereka yang tersendiri. Dan dari pandangan saya juga, pelajar-pelajar Universiti Malaysia Pahang amat meminati dan suka menceburkan diri dalam bisnes. Jadi, saya memandang dua kriteria ini sebagai satu pencetus idea untuk saya dalam membina sebuah aplikasi untuk pelajar-pelajar UMP melakukan aktiviti bisnes, menjual dan membeli barang-barang secara atas talian. Saya juga mendapati pelajar-pelajar lebih cenderung untuk menggunakan media yang salah dalam mempromosikan bisnes mereka seperti di portal e-Comm. Justeru, ianya membuatkan saya lebih bersemangat waja dalam membina dan menjayakan aplikasi peranti mudah alih ini.

Projek ini juga mengkaji tentang masalah yang berlaku dalam menjalankan bisnes atas talian dan akhirnya mencadangkan UMP Business Application untuk mengelak daripada masalah ini terus berlaku. Dengan ini saya berharap agar aplikasi ini dapat menyenangkan aktiviti bisnes pelajar UMP dan semuanya berasa gembira menggunakannya.

Chapter 1

INTRODUCTION

1.1 Background

Online business is often assumed by internet marketers that all business is done online by using the internet as a medium for marketing products and services is to cover portions of the online business. So in this case the internet is just the media as the Internet itself is composed of thousands of pages of thousands-even millions of Web pages are able to provide information for Internet users.

As we know business is a good thing and 90 percent of source of sustenance come from business. When student involve in business, it helps them to handle their money management problem. Besides that, the money that they get to some extent can reduce their parent's burden in supporting them with money. UMP also encourage student in entrepreneur by taking entrepreneurship course and the existence of business club. With this kind of experience, it will help them to weather with the life outside after graduate.

UMP Business app is a mobile application that is made especially for UMP students for buying and selling products or services. This app can acts as a main medium to facilitate them in doing business instead of them using wrong medium such as e-Comm to promote things. Besides, this system also can make students to have more interest in business and become a great entrepreneur therefore can make UMP name rise and be respected by others.

1.2 Problem Statement

UMP e-communication page always been flooded by unnecessary advertisement about selling products. Because of this, the important post by lecturer or students about class and many more has been topped down until the posts are no longer viewable. This can be a stressful situation for the student who did not get that particular important information. Therefore, this great app may be the right solver for this case.

Mobile apps are developed as it makes it a little easier for the user rather than using websites. With just a touch on the apps, the user already can get into the system, easily and save a little of their precious time instead of opening the browser and typing the website URL. Almost every student has at least one smartphone on their hands which make them as the target user for these mobile apps.

1.3 Current System

There is no similar system yet in UMP. Students use many medium to promote their selling items and products such as on Facebook, Twitter and UMP e-comm portal. The existing system that serves as an online store, just like this UMP Business apps, are Mudah.my, Lelong.com.my and eBay apps.

1.4 Objective

This project aims to develop a mobile application that user can post ads of their products that they want to sell and view the products that available for sell.

The objectives of the research are to:

1. To design mobile application for UMP students.
2. To develop prototype of UMP Business application.
3. To test the system as Android mobile apps.

1.5 Project Scope

The scopes of this project that have been identified are:

i. Login and Signup functions.
ii. This project comes with seller post their ads and customer can view that post.
iii. The seller will confirm or deal for delivery date manually.
iv. The concept that will be used on this system is mobile application for Android.
v. The software to be use in developing this system is Eclipse IDE.

1.6 Thesis Organization.

This thesis consists of five (5) chapters.

Chapter 1 – Introduction

This chapter will explain about background, problem statement, objective and benefit of the research, limitation and thesis organization.

Chapter 2- Literature Review

This chapter will explain the description and theoretical literature survey that the authors used in doing the planning and manufacturing applications that can be used as the benchmark or reference in the discussion of the problem.

Chapter 3- Methodology

This chapter describes the research methodology used in completing the study authors, research materials, and tools, measures of research, analysis and difficulty of the existing difficulties. The design of the application will show at this chapter.

Chapter 4- Design and Implementation

This chapter will explain the overview of system implementation and results of software testing.

Chapter 5- Conclusions

This chapter contains the final task overall conclusions and recommendations are given for further software development.

Chapter 2

LITERATURE REVIEW

2.1   Android

The term "Android" has its origin in the Greek word andr-, meaning "man" and the suffix-eides, which means "same or species". When interpreted together it means "man" Android is a software stack for mobile devices that includes an operating system, middleware and key applications. Android released by Google Inc. in November 2007, is open source so developers can create their own applications for mobile devices as needed. In application development Android provides Android SDK provides the tools and APIs for application developers to the Android platform. Android uses Java as a programming language. (Android, 2013, 2013)

There multiple versions of the Android operating system, starting from version 1.5 (cupcake), version 1.6 (Donut), version 2.1 (Eclair), version 2.2 (Froyo), version 2.3 (Gingerbread) , version 3.0 (Honeycomb), 4.0 (Ice Cream Sandwich), version 4.1 (Jelly Bean), version 4.2 (Jelly Bean) and version 4.4 (Kitkat). (Android tabloid, 2014).
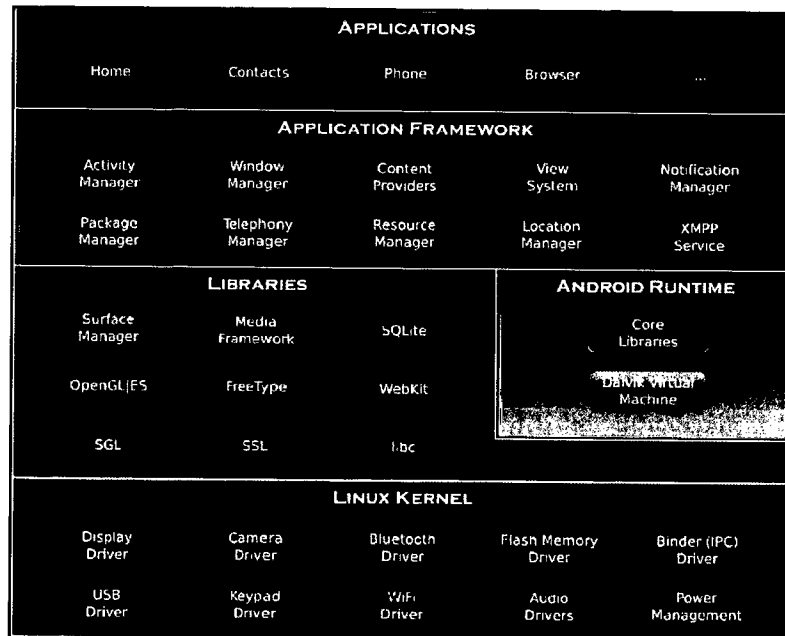

Figure 2.1: Android Operating System Architecture

Figure 2.1 is an android in the form of architectural layers. The layers are arranged in the Android architecture are as follows: (Android, 2013)

a) Applications Layer: Android will combine with a set of core applications including an email client, SMS program, calendar, maps, browser, contacts, and others. All applications are written using the Java programming language.

b) Application Framework Layer: By providing an open development platform, Android offers developers the ability to build applications that are extremely rich and innovative. Developers are free to take advantage of the device hardware, access location information, run background services, set alarms, add notifications to the status bar, and much more. Developers have full access to the same framework APIs used by the core applications. The application architecture is designed to simplify the reuse of components; application can publish its capabilities and any other application that can use their abilities (limited to the constraints of the security provided by the framework). This same mechanism allows components to be replaced by the user.

c) Libraries Layer: Android includes a set of libraries C / C + + used by the various components of the Android system. This capability is intended for application developers through the Android application framework. Some of the core libraries are listed below:

1. System C library - a BSD - derived implementation of the standard C system library (libc), is set for a Linux-based devices integrated.

2. Media Libraries - based on PacketVideo's OpenCore; libraries support playback and recording of popular audio and video formats, as well as static image files, including MPEG4, H.264, MP3, AAC, AMR, JPG, and PNG.

3. Surface Manager - manages access to the display subsystem and seamlessly composites 2D and 3D graphic layers from multiple applications.

4. LibWebCore - a modern web browser engine which powers both the Android browser and an embeddable web view.

5. SGL - the underlying 2D graphics engine.

6. 3D libraries - implementation based on OpenGL ES 1.0 API, the library uses any 3D hardware acceleration (if available) or the included , highly optimized 3D software rasterizer.

7. FreeType - bitmap and vector font rendering.

8. SQLite - a powerful relational database engine and lightweight are available for all applications.

d) Android Runtime Layer: Android includes a set of core libraries that provides most of the functionality available in the core libraries of the Java programming language. Every Android application runs in its own process, with its own instance of the Dalvik virtual machine. Dalvik has been written so that the device can run multiple VMs efficiently. The Dalvik VM executes files in the Dalvik Executable (.Dex) format which is optimized for minimal memory footprint. VM is registered, and runs classes compiled by a Java compiler that have been transformed into the format. "Dex" by devices "dx" is included in it. The Dalvik VM relies on the Linux kernel for basic functionality such as threading and low-level memory management.

e) Linux Kernel Layer: Android relies on Linux version 2.6 for core system services such as security, memory management, process management, network stack, and driver models. The kernel also acts as an abstraction layer between the hardware and the entire software stack.

2.2 Existing System Review

The existing systems that have business system will be reference and the guidance for me to build the system. The system will explain the advantage and disadvantage so that the system that will build will be the user-friendly and fantastic. The advantage will be used for the system and the disadvantage will be solved in creating the system.

2.2.1 Lelong.my apps

Description

Lelong.my Android App is the No 1, Largest and Most Complete Mobile Shopping App in Malaysia.

Users can browse, search, buy, bid or simply do mobile shopping from more than 850,000 products offer in Lelong.my.

Users can shop and instantly pay with NetPay mobile payment which accepts Visa & Master (credit card), MB2U, CimbClicks and HLBB.

Besides, as a Seller, user can scan, track and update your order list and even update your courier tracking number from anywhere and anytime.

Features

For Buyers:

- Show lists of Promotional Products
- Able to refine search product with various options
- Get product details with promotion information
- Better graphical and text product description with multiple images can be viewed
- Allow to make secure payment with PayPal
- Can check Buy Now orders.

For Sellers:

- Able to search orders with various options
- Able to check any new BuyNow Order and Successful Auction
- Able to update BuyNow Order and Successful Auction
- Able to update shipping tracking code via in-app barcode scanner
- Have own store profile to show user products and rating

Problem in existing system

- Cannot directly inbox/private message seller

2.2.2 eBay apps
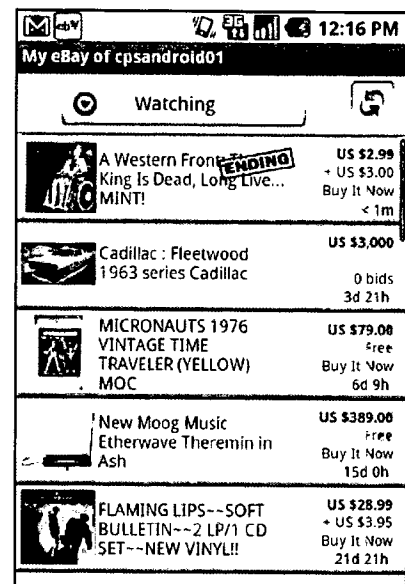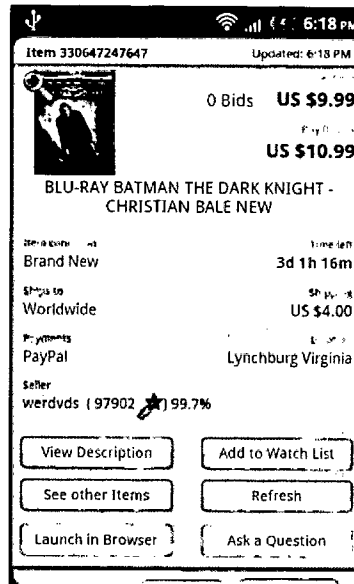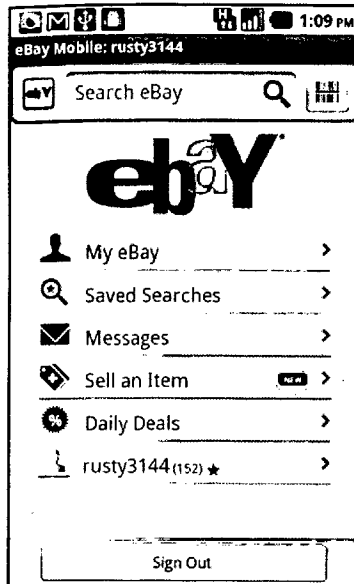
Description

eBay work very hard every day to build a world-class online shopping experience on Android. The eBay app is packed full of features that make it easy to browse, buy, sell and manage user eBay experience whenever and wherever with a single touch.

Features

- Search, Bid, Buy or Make offers on unique items from around the world
- List user items for sale in minutes
- Use the barcode scanner to find items, compare prices or start a new listing
- Get customizable alerts about user eBay items and activity

- Track packages
- Leave feedback
- Read and respond to eBay messages
- save user favorite searches and sellers for quick access to the latest inventory
- Revise user listings and manage your eBay business on the go

Problems in existing system

- Users cannot find the specific items they want, as there are too many not related numbers of results.

2.2.3 BigSale Malaysia apps

Description

BigSale Malaysia features the daily promotions, group buying deals, warehouse sales, fairs and exhibitions in Malaysia. BigSale.com.my has been collecting sales & promotions in Malaysia since year 2009, with over 2 million users, and more than 50 thousands promotions posted.

With BigSale mobile app, user will never miss the sales and coupon deals again.

Features

- Search for daily sales, promotions, fairs and warehouse sales
- Search for group buying daily deals / coupon offer in Malaysia.
- Register as member and be the first to know the latest daily promotions and deals.
- Bookmark user favorite's deals and keep track of all the daily deal vouchers in one place for easy access, while notifying user before they expire.

Problems in existing system

- Graphic not too user-friendly
- Small images

Chapter 3

METHODOLOGY

3.1 Introduction

This chapter presents overall approach and framework of my research. Generally in this system, it is consist of two parties which are admin and user. In user parties, we can declare two more parties which are the seller and the buyer.

Administrator Role

   I.   Maintaining the application

   II.   Edit and delete Ads

User Role

   I.   Sign up and login

   II.   Posting Ads

   III. Preview products and services available

   IV. Proceed with contacting seller

3.2 UMP Business Application system

UMP Business Application is user-friendly application developed for the purpose of to ease the business activity among UMP students. User can have it installed in their smartphone by downloading the application first at Google Play.

After installing the application, user needs to register and login as a first timer user. Then, user can use that application, scroll down and review products and services that available. If they are interested enough to buy that product, they can proceed with contacting the seller. All of available seller contacts are displayed such as the seller's name and phone number. They also can directly inbox the seller.
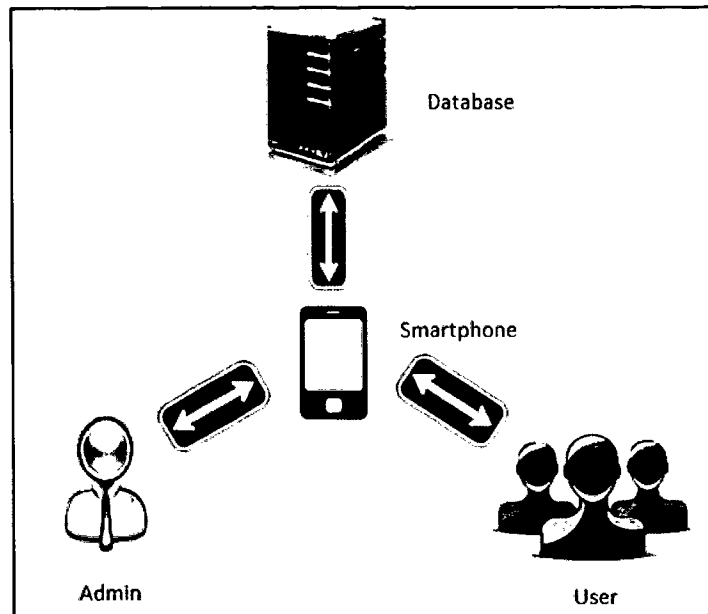
3.3 Logical Design

Figure 3.3.1

Figure 3.3.1 above shows the context diagram for this UMP Business application system. This system connects with database server as it stored all the information needed such as login username and password. Admin can maintain this system by only using his smartphone device. User can review, buy or sell using their smartphone device after installing the application. Internet connection is required if user want to view or sell new available products and services.

3.4 Hardware Requirement

HP Probook 4420s

Processor	Intel® Core™ i3-380M Processor (2.53GHz, 4CPUs) – Sandybridge
Chipset	Mobile Intel HM57 Express Chipset
RAM	2GB DDR3 1333 MHz SDRAM,
Video	Intel HD Graphics
Display	14.0 in diagonal LED-backlit HD BrightView (1366 x 768 resolution)
Hard Drive	320 GB Serial ATA 5400 RPM
Optical	Optical Drive: DVD±RW
Internet Card	Networking Integrated, Speed 10 / 100 Mbps
	Wifi Bluetooth Integrated Webcamera 2.0 MP Card Reader: SD, MMC, Memory Stick Interface: 3x USB 2.0, VGA, HDMI, LAN, Audio Battery: 6 cells Rechargeable Lithium-ion Battery Dimension: (WHD) 34.9 x 3.65 x 23.8 cm Weight: 2.36 kg

Table 3.4.1 Computer Specification – Hardware Requirements

Samsung Galaxy Ace 3

Network	GSM GPRS/EDGE (850/900/1800/1900 MHz) UMTS HSPA 850/900/1900/2100 MHz)
Dimension	121.2 x 62.7 x 10 mm (LTE)
Screen	TFT capacitive touchscreen, 16M colors, 4.0 inches (~59.9% screen-to-body ratio), 480 x 800 pixels (~233 ppi pixel density), Multitouch
Camera	5 MP, 2592 x 1944 pixels, autofocus, LED flash
Operating System	OS Android 4.2 (Jelly Bean)
Processor	Dual-core 1.2 GHz Krait (LTE)
Graphic	Broadcom Adreno 305 (LTE)
Memory	8 GB (LTE), 1 GB RAM
Connectivity	WiFi IEEE 802.11b/g/n, aGPS, Bluetooth, HDMI, MicroUSB, NFC
Battery	1800 (LTE) mAh battery
GPS (Global Positioning System)	Yes

Table 3.4.2 Smartphone Specification – Hardware Requirements