ONLINE KEYBOARD FOR APPLICATION DEVELOPMENT SELLERS ON ANDROID-BASED SMARTPHONE

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ABSTRACT

Online shop or online store can be interpreted as a buy and sell trade or activity which is connected to the network in this network is the internet. Online business different from conventional businesses (offline) If conventional sellers business meet and interact directly with the customer, so if the seller's online business does not meet directly with end consumers but directly interact with utilizing social media or e-commerce application. With a keyboard this multitasking applications can facilitate online sellers display information shipping and display the information of the availability of the goods. FIRE King Ongkir can be used for all applications that require data delivery cost. Postage data taken directly from web airfreight services to maintain the accuracy of the data. Based on the testing of alpha can be concluded that the application meets the criteria of good information media i.e. helps online retailers make it easy to get information, and shipping information menamplikan availability of goods so that the such information can be delivered to the customer faster.

Keywords: *Online Shop, Keyboard, Android, Fire King Ongkir*

1. INTRODUCTION

Online shop is one of the business development rapidly and much sought after. This can be proven by data from the Central Bureau of statistics (BPS) showed the growth of e-commerce in Indonesia on economic census year 2016. In a period of 10 years (2006 – 2016) number of e-commerce in indonesia increased by about 17% or 26.2 million business.

Based on the results of the interviews generally issues a lot from online sellers who complained at the time to chat with the customer information, shipping, the availability of goods, no longer need to open other applications, so that customer did not wait long for answers.

*This study refers to online sellers, who need information quickly on while chatting with the customer, while the tools used at the time of chat that is the keyboard. Then the solution offered is how to create a keyboard that can help online sellers at the time chatting in accessing the applications needed at the time trade with the customer, from the things that have been described. above diajukanlah the title of the thesis "**development application of the Keyboard for Online Sellers On Android-based Smartphones.**"*

2. The CORNERSTONE of the THEORY

2.1 *Online Shop*

Online shop or online store can be interpreted as a buy and sell trade or activity which is connected to the network in this network is the internet.[1]

Online business different from conventional businesses (offline) If conventional sellers business meet and interact directly with the customer, so if the seller's online business does not meet directly with end consumers but directly interact with utilizing social media or e-commerce application

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2.2 Android

Android is a Linux-based operating system that includes an operating system, middleware and applications. Android provides an open platform for developers to develop or create the application. Google Inc. bought Android Inc., at that time a newcomer who makes software for smartphone devices and thus the Open Handset Alliance, a consortium of 34 companies comprising hardware, software, and telecommunications, including Google, HTC, Intel, Motorola, Qualcomm, T-Mobile and Nvidia to develop android.[2]

2.3 FIRE King Ongkir

FIRE King Ongkir provides API Developed that can be used for all applications that require data delivery cost. Postage data taken directly from web airfreight services to maintain the accuracy of the data.

FIRE King Ongkir can be integrated using the architecture of the REST using the JSON reply format supported by all programming languages and can make a feature to calculate delivery cost automatically on your online store.[3]

2.4 API

Application Programming Interface (API) provides functions and commands by using language that is more structured and easy to understand. This is important for editing and development aspects, so that programmers can develop systems with ease.[4]

3. ANALYSIS AND IMPLEMENTATION OF

3.1 Data Collection Methods

Method of data collection in this research are as follows:

A. The Study Of Literature

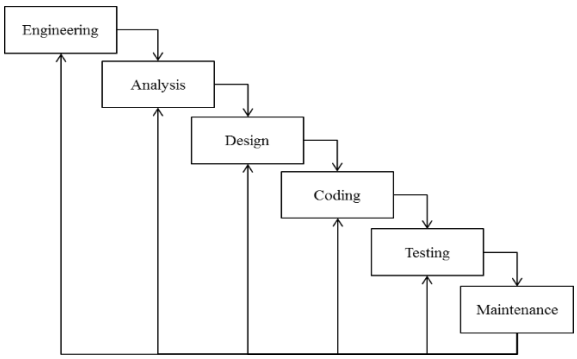
Study of Literature is a technique of collecting data that ties with the research, such as collecting reference books, paper, and other readings.

B. Interview

The interview is the technique of data collection by way of face-to-face directly at once ask a few questions to online sellers.

3.2 A Method Of Software Development

In the development of this application is to use The Classic method of Life Cycle (Waterfall). The reason he has chosen model waterfall because the stages of the process is very timely and appropriate.



Pictures 1 Waterfall Ian Sommerville

3.3 Analysis Of The FIRE Get Postage

The following explanation to get shipping information.

1. Cost

Method "cost" is used to find out the shipping cost (postage) to and from certain destinations with a certain weight anyway.

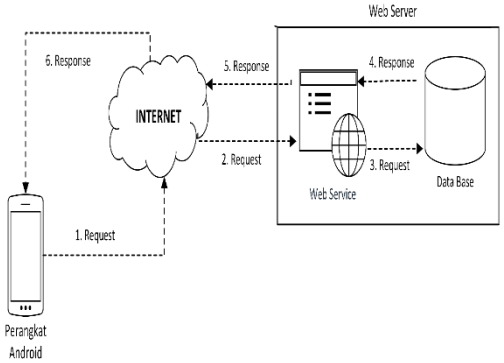
Table 1 Get FIRE Ongkir

Method	URL
POST	https://api.rajaongkir.com/starter/cost

Method	Parameter	Wajib	Tipe	Keterangan
POST/ HEAD	key	Ya	String	API Key
POST	origin	Ya	String	ID kota asal
POST	destination	Ya	String	ID kota tujuan
POST	weight	Ya	Int	Berat kiriman (gram)
POST	courier	Ya	String	Kode kurir (jne, pos, tiki)

3.4 Analysis Of System Architecture

The following system architecture from the application keyboard online sellers to be built:



Pictures 2 Analysis Of System Architecture

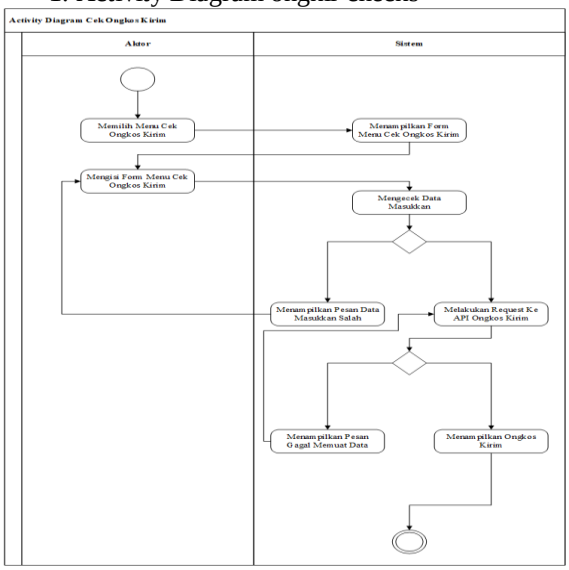
The following is a description of system architecture platform mobile applications to be built:

1. 1. android devices perform the request data to the server over the internet
2. 2. The Web server receives the request data and processed by the web service
3. 3. Web service do a request to the data base in the form of a query to retrieve the data.
4. 4. Web service receives the response to the requested data, then sent to android devices to process data in JSON form.
5. 5. once processed, the data is sent over the internet in accordance with the request.
6. 6. android devices receive a JSON response from the web service through the internet and conduct the process of parsing to represent data that is received.

3.5 Activity Diagram

Here is an activity diagram ongkir checks:

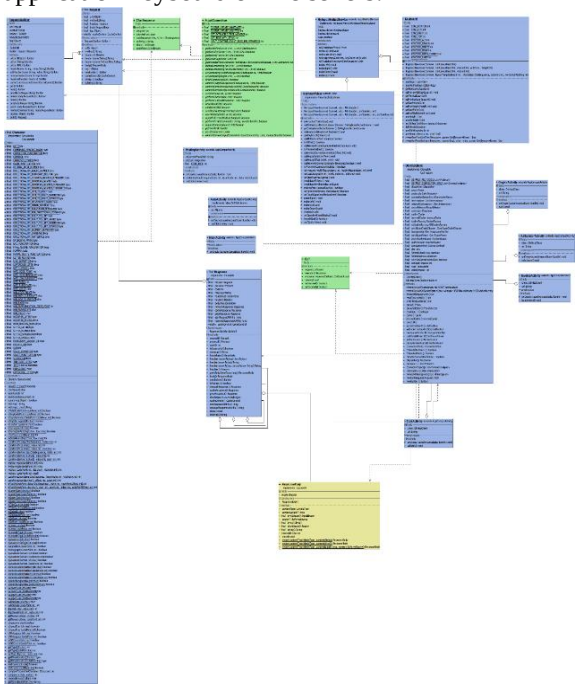
1. Activity Diagram ongkir checks



Pictures 3 Activity Diagram Cek Ongkir

3.6 Class Diagram

The following is the class diagram of the application keyboard online sellers:

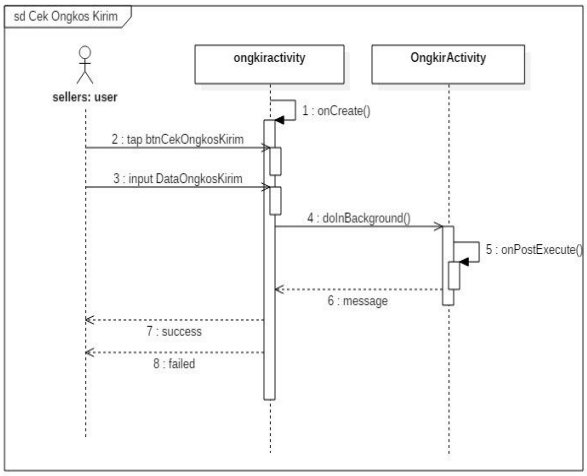


Pictures 4 Class Diagram

3.7 Sequence Diagram

Here is an *sequence diagram* check ongkir :

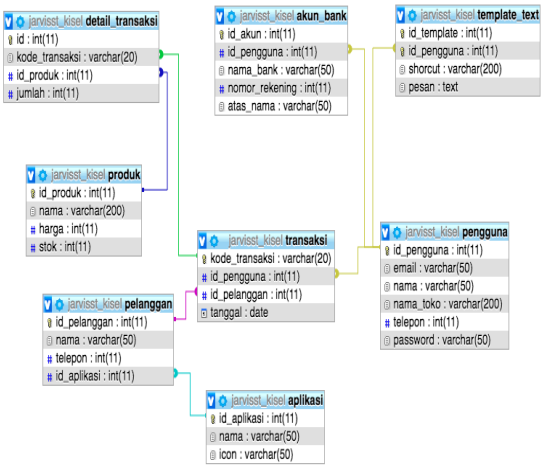
1. *Sequence diagram* check ongkir :



Pictures 5 Diagram Sequence Check Ongkir

3.8 Scheme Relation

Here is an application of the relation scheme in the application keyboard online sellers:



Pictures 6 Skema Relasi

3.9 Table Structure

The structure of the table is the explanation of the details of the scheme in relation database system. The following is a description of each of the tables.

Table 2 Application Table Structure

Column	Type	Null	Default	Comments
id_aplikasi (Primary)	int(11)	No		
nama	varchar(50)	No		
icon	varchar(50)	No		

Table 3 User Table Structure

Column	Type	Null	Default	Comments
id_pengguna (Primary)	int(11)	No		
email	varchar(50)	No		
nama	varchar(50)	No		
nama_toko	varchar(200)	No		
telepon	int(11)	No		
password	varchar(50)	No		

Table 4 Product Table Structure

Column	Type	Null	Default	Comments
id_produk (Primary)	int(11)	No		
nama	varchar(200)	No		
harga	int(11)	No		
stock	int(11)	No		

Table 5 Template Text Table Structure

Column	Type	Null	Default	Comments
id_template (Primary)	int(11)	No		
id_pengguna	int(11)	No		
shorcut	varchar(200)	No		
pesan	text	No		

Table 6 Transaction Table Structure

Column	Type	Null	Default	Comments
kode_transaksi (Primary)	varchar(20)	No		
id_pengguna	int(11)	No		
id_pelanggan	int(11)	No		
tanggal	date	No		

4. RESULTS AND DISCUSSION

4.1 Implementation Of Data

Database implementation is implementation based on the design of the database that you created earlier. Physical implementation of the database using MySQL. The following is the syntax of the database Builder used:

Table 7 Implementation Of Data

Nama Tabel	Perintah SQL
Pengguna	CREATE TABLE `pengguna` (`id_pengguna` int(11) NOT NULL AUTO_INCREMENT, `email` varchar(50) NOT NULL, `nama` varchar(50) NOT NULL, `nama_toko` varchar(200) NOT NULL, `telepon` int(11) NOT NULL, `password` varchar(50) NOT NULL, PRIMARY KEY (`id_pengguna`)) ENGINE=InnoDB DEFAULT CHARSET=latin1
Pelanggan	CREATE TABLE `pelanggan` (`id_pelanggan` int(11) NOT NULL AUTO_INCREMENT, `nama` varchar(50) NOT NULL, `telepon` int(11) NOT NULL, `id_aplikasi` int(11) NOT NULL, PRIMARY KEY (`id_pelanggan`), KEY `id_aplikasi` (`id_aplikasi`), CONSTRAINT `pelanggan_ibfk_1` FOREIGN KEY (`id_aplikasi`) REFERENCES `aplikasi` (`id_aplikasi`)) ENGINE=InnoDB DEFAULT CHARSET=latin1 CREATE TABLE `produk` (`id_produk` int(11) NOT NULL AUTO_INCREMENT, `nama` varchar(200) NOT NULL, `harga` int(11) NOT NULL, `stok` int(11) NOT NULL, PRIMARY KEY (`id_produk`)) ENGINE=InnoDB DEFAULT CHARSET=latin1
Template Text	CREATE TABLE `template_text` (`id_template` int(11) NOT NULL AUTO_INCREMENT, `id_pengguna` int(11) NOT NULL, `shorcut` varchar(200) NOT NULL, `pesan` text NOT NULL, PRIMARY KEY (`id_template`),

	UNIQUE KEY `id_pelanggan` (`id_pengguna`), CONSTRAINT `template_text_ibfk_1` FOREIGN KEY (`id_pengguna`) REFERENCES `pengguna` (`id_pengguna`)) ENGINE=InnoDB DEFAULT CHARSET=latin1
Transaksi	CREATE TABLE `transaksi` (`kode_transaksi` varchar(20) NOT NULL, `id_pengguna` int(11) NOT NULL, `id_pelanggan` int(11) NOT NULL, `tanggal` date NOT NULL, PRIMARY KEY (`kode_transaksi`), KEY `id_pengguna` (`id_pengguna`), KEY `id_pelanggan` (`id_pelanggan`), CONSTRAINT `transaksi_ibfk_1` FOREIGN KEY (`id_pengguna`) REFERENCES `pengguna` (`id_pengguna`), CONSTRAINT `transaksi_ibfk_2` FOREIGN KEY (`id_pelanggan`) REFERENCES `pelanggan` (`id_pelanggan`)) ENGINE=InnoDB DEFAULT CHARSET=latin1
Aplikasi	CREATE TABLE `aplikasi` (`id_aplikasi` int(11) NOT NULL AUTO_INCREMENT, `nama` varchar(50) NOT NULL, `icon` varchar(50) NOT NULL, PRIMARY KEY (`id_aplikasi`)) ENGINE=InnoDB DEFAULT CHARSET=latin1
Akun Bank	CREATE TABLE `akun_bank` (`id_akun` int(11) NOT NULL AUTO_INCREMENT, `id_pengguna` int(11) NOT NULL, `nama_bank` varchar(50) NOT NULL, `nomor_rekening` int(11) NOT NULL, `atas_nama` varchar(50) NOT NULL, PRIMARY KEY (`id_akun`), KEY `id_pelanggan` (`id_pengguna`), CONSTRAINT `akun_bank_ibfk_1` FOREIGN KEY (`id_pengguna`)
	REFERENCES `pengguna` (`id_pengguna`)) ENGINE=InnoDB DEFAULT CHARSET=latin1

4.2 Implementation Of Interface

Implementation of the interface contains the exposure of any display of the software being built. The following is a table of interface implementation.

Table 8 Implementation Of Interface

No	Nama Antarmuka	Nama File
1	Daftar	daftar.xml
2	Login	login.xml
3	Lupa Password	lupa.xml
4	Buat Invoice	keyboard.xml
5	Cek Ongkir	keyboard.xml
6	Posting Iklan	keyboard.xml
7	Cek Stok	keyboard.xml
8	Kalkulator	keyboard.xml
9	Auto Text	keyboard.xml

4.4 Scenario Testing

The following is a table of the following testing scenarios:

Table 9 Scenario Testing

Kelas Uji	Poin Pengujian	Jenis Pengujian
Login	Input data login	*Black Box*
	Validasi login	*Black Box*
Daftar	Input data register	*Black Box*
	Tekan tombol register	*Black Box*
Lupa Password	Input data lupa	*Black Box*
	Tekan tombol kirim	*Black Box*
Buat Invoice	Input data invoice	*Black Box*
	Tekan tombol simpan	*Black Box*
Cek Ongkir	Input data ongkir	*Black Box*
	Tekan tombol kirim	*Black Box*
Posting Iklan	Input nama iklan	*Black Box*
Cek Stok	Input data produk	*Black Box*
	Tekan tombol cek	*Black Box*
Kalkulator	Pilih tombol angka	*Black Box*
	Tekan tombol hitung	*Black Box*
Auto Text	Input Data template	*Black Box*
	Tekan tombol kirim	*Black Box*

5. CONCLUDING

5.1 Summary

The conclusions of the Research Development Application Keyboard for Online Sellers On Android-based Smartphones is as follows :

1. Helps online sellers in checking shipping.
2. Helps online sellers in view the availability status of the goods.

5.2 Advice

It is advisable to fix the display

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