# *DEVELOPMENT OF APPLICATION GUIDE TO COOK USING PROXIMITY SENSOR AS AIR GESTURE FEATURE FOR ANDROID PLATFORM*

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***ABSTRACT***

*Using a guide in the form of mobile devices for cooking is found various problems, according the results of the survey that was conducted respondents had difficulty in navigation, with dirty hands during the cooking time due to exposure of seasoning, it makes them to clean their hands before they can touch the screen of the mobile devices and It made the time in cooking inefficient.*

*Nowadays, almost in all Android smart phones are advanced features to facilitate its users. One feature that is being talked about is a feature Air Gesture. Features Air Gesture is one feature that is not much different with floating touch, where users can then manage access to the smart phone without physical contact to the smartphone screen. Smartphone can understand commands made by the user simply through hand motions.*

*Based on the problems that have been described, it can be concluded the need to build applications cooking guide using the air gesture feature or floating touch gesture utilizing Proximity Sensor features available on Android smartphones. Platforms used for mobile sub-system is android, considering that most of the users in the world are using Android. In addition, to support the performance of the software better.*

*Based on test results using black box testing methods can be concluded that the cooking guide application enables users to navigate with the features Air Gesture.*

***Keywords:*** *Cook, Recipes, Air Gesture, Android, Proximity Sensor, Spatula*

## *1. INTRODUCTION*

*Cooking today has become one of the human lifestyle, this is reinforced by the emergence of new innovations in food, and is characterized by the emergence of the foodies who knows how to review and create a delicious dish is tempting. Cooking can be done by anyone, from children to adults, it is characterized by the many TV program that presents the cooking show by the famous chef from Indonesia and outside Indonesia. As well as their talent in the field of amateur chef cooking to seek qualified and professional, such as Masterchef Indonesia, Junior MasterChef Indonesia, Hell's Kitchen, Top Chef Indonesia and others. [2]*

*For people who are not used to cook or are learning to cook will need guidance in cooking or recipes. Many sources of recipes easily available, for example from a magazine, blog cooking, until the application that serves a variety of recipes. Nowadays mobile devices have become a necessity for the Indonesian community, and the world, this is reinforced by the research says that of the 247 million population, 24 percent of Indonesian people are Internet users. Interestingly, 62 percent of Internet users are accessing the Internet through mobile devices, and less than 10 percent of those who had internet access at home. 92 percent of Internet users in Indonesia have a Facebook account, and 75 percent of Facebook users in Indonesia to access social networking via mobile devices. E-commerce customer prefers to shop online through online shopping sites usual (20 percent), social media (26 percent), the group chat applications such as fuel (27 percent), and forum sites or online classifieds like Kaskus and Tokobagus (27 percent). [3]*

*From the above research concluded that the recipes are sought through a mobile device, this is reinforced by the results of surveys that have been done 39 out of 50 respondents that many respondents viewed recipes from a mobile device, as well as 48 out of 50 respondents are active social media users. Thus the authors build a mobile app-based recipes that spring social media. But in cooking using a guide in the form of mobile devices are found various problems according the results of the survey that was carried out 31 of the 50 respondents had difficulty in navigation, with dirty hands while cooking due to exposure to the stains on the cooking discourage*

*users from directly touching the screen of mobile devices in it, so will cleanse hands first. It made the time in cooking inefficient.*

*As the development trend in the android community, vendors Android smartphone more incentive to innovate in order to develop public appreciation especially Android users. Nowadays, almost in all Android smartphones are advanced features to facilitate its users. One feature that is being talked about is a feature Air Gesture. Features Air Gesture is one feature that is not much different with floating touch, where users can then manage access to the smartphone without physical contact to the smartphone screen. Smartphone can understand commands made by the user simply through hand motions [4].*

*Based on the problems that have been described, it can be concluded the need to build applications using the cooking guide water feature or floating touch gesture utilizing Proximity Sensor features available on Android smartphones. The platform is being used as a pilot project this software is an android with the consideration that the current android has a market share of 70% of all smart devices that are enabled [5]. With the development of this application is expected to be the perfect solution to support increasing the productivity and efficiency of the cooking time for the user.*

### *1.1 Sensor*

*Sensor is a tool that can be used to measure, analyze, monitor conditions and then respond to changes in the surroundings. This tool can be found on modern devices such as the smartphone with android operating system, a smart phone that has a package of advanced technology.*

### *1.2 Proximity Sensor*

*Proximity sensor is a sensor that can detect the presence of objects without physical contact. Proximity sensor emits electromagnetic fields or electromagnetic radiation (eg, infrared) to detect changes in the field to return a signal. There are four types of proximity sensor technology, including Electrical (Inductive and Capacitive), Optical (IR and Laser), Magnetic, Sonar.*

*Of the several types of proximity sensor, proximity sensor type with the most widely used optical type, because this type of type of optical proximity sensor is cheaper and simpler than other sensor types, and can detect objects up to a distance of 5cm. Proximity sensor on your android phone, usually located in front of the phone, precisely on the phone screen as in Figure II-1*




*Figure II-1 On the Proximity Sensor Smartphone*

*On android phones proximity sensor is used to turn off the screen when there is an incoming call. It aims to save battery consumption when the user is making a voice call. Proximity sensors will be activated automatically and detects when objects within range of the sensor, then the sensor will send information to the system when the object is approaching the sensor, and the system will turn off the screen for objects close to the sensor during a call occurs.*

*Proximity Switch or Proximity Sensor is a detection device that works based on the distance of an object against the sensor. The characteristics of this sensor is to detect objects with the objects a short distance, ranging from 1 mm to several centimeters meters according to type of sensors used. Proximity Switch has a working voltage of 10-30 Vdc and there is also a voltage 100-200VAC.*



*Figure II-2 Proximity Switch*

*Almost every machine production today use a sensor of this type, because in addition to the practical sensor includes a sensor resistant to impact or shock, otherwise it easily when performing maintenance or repair of replacement.*

*Proximity Sensor is divided into two kinds, namely:*

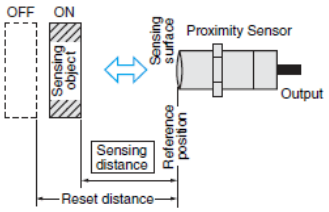
- *Inductive Proximity*
- *Proximity Capacitive*

*Inductive Proximity function to detect an object of iron / metal. Although hindered by non-metal objects, the sensor will still be able to detect as long as the distance (value) or a normal sensing range. If the sensor detects the presence of iron in the area sensingnya, then the condition of the sensor output will change its value.*

*Capacitive Proximity will detect all objects that exist within sensingnya both metal and non-metal.*

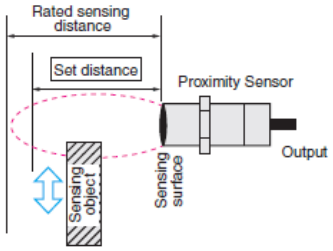
***distance diteksi***

*The detection distance is the distance from the position sensor legible and illegible for its operation, when objects are objects moved by a particular method.*



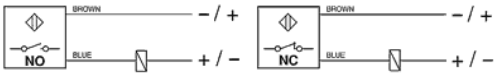

***Spacing***

*Set the distance from the surface of the sensor allows the use of sensors is more stable in its operation, including the effects of temperature and voltage. The position of the object (standard) sensing this transit is about 70% to 80% of the distance (value) normal sensing.*

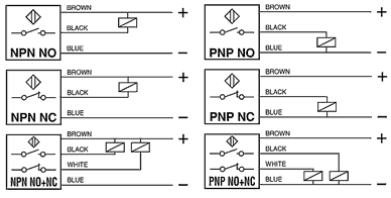



*The output value of the Proximity Switch there are 3 kinds, and can be classified as well as the value of NO (Normally Open) and NC (Normally Close). Just like the function of a button, or specifically resemble the limit switch function in a working system circuit that requires a reader device in the system continuously working machine.*

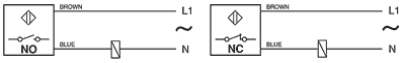
*Three kinds ouput Proximity Switches can be seen in the figure below.*




*Output 2 kabel VDC*




*Output 3 dan 4 kabel VDC*




*Output 2 kabel VAC*

*By looking at the picture above we can recognize this type sensors Proximity Switches: type NPN and PNP type. Type is that later can be connected to a wide range of semi-digital control equipment that require logic as input values for the working process.*

*Some types of Proximity Switches can only be connected to the PLC depending on the type and kind. This sensor can also be connected directly with a variety of semi-digital control equipment such as Sensor Controller and relay digital counter. In principle function Proximity Switch is a control circuit is a control to turn memati an interlock system with the help of semi-digital equipment for the working system sequentially in the control circuit.*

### *1.3 Information System*

*The system is a collection of components of the model equipment requirements, function and interface. Information Systems is a regular combination of any of the human resources, hardware, software, data, and network. The life cycle of a system include :*

1. *Investigation*
2. *Analysis*
3. *Design*
4. *Implementation*
5. *Maintenance*

### *1.4 Component Information System*

*The development of information systems can be described as a system consisting of various components. These components interact with each other to form a unity to achieve the objectives [7]:*

*1. Component Input*

*Representing the amount of data entered into the information system. The inputs including methods and media to obtain data to be included, which can be basic documents.*

*2. Process Components*

*Consisting of a combination of procedures, logic and mathematical models will manipulate the input data and data stored in the database in a certain wayto produce an output (output) is desired.*

*3. Component Output*

*Product information system is the output that is the information and documentation that can be used for all levels of management and all users of the system.*

*4. Component Technology*

*Technology is a tool-box in information systems. Technology used to receive input, run the model, store and access data, generate and transmit output and help control the overall system.*

*5. Hardware Components*

*Hardware plays an important role as a vital equipment for the information system used to store and process information.*

*6. Software Components*

*Software serves as a collection of computerized commands that are useful for processing, calculating and manipulating data taken from the hardware to create an information.*

*7. Component Database*

*The database is a collection of data relate to each other, are stored on the computer hardware and software used to manipulate it. Database management commonly known by the name of DBMS (Database Management System).*

*8. Control Components*

*Control Department designed and implemented to maintain the system of things that can cause damage, such as natural factors of temperature, water, fire, dust, viruses, sabotage / hijacking, and so on.*

### *1.5 Android*

*Android is an operating system for Linux-based mobile devices that includes an operating system, middleware, and applications. Android is an operating system for mobile phones based on Linux. Android provides an open platform for developers to create their own applications. Initially developed by Android Inc., a firm newcomers who make software for mobile phones which was later purchased by Google Inc. For its development, formed the Open Handset Alliance (OHA), a consortium of 34 companies hardware, software, and telecommunications, including Google, HTC, Intel, Motorola, Qualcomm, T-Mobile, and Nvidia..*

### *1.6 Android Life Cycle*

*Android application consists of some basic functions such as editing a note, play music files, sound an alarm, or open the phone contacts. Those functions can be classified into four different android components as shown in, the classification is based on the basic java classes used .*

*Tabel 1 Android Application Components*

| *Functionality* | *Java Base Class* | *Examples* |
|---|---|---|
| *Focused thing a user can do* | *Activity* | *Edit a note, play a game* |
| *Background process* | *Service* | *Play music, update weather icon* |
| *Receive messages* | *BroadcastReceiver* | *Trigger alarm upon event* |
| *Store and retrieve data* | *ContentProvider* | *Open a phone contact* |

*Application of the life cycle is also useful to make sure applications do not consume resources the battery.*

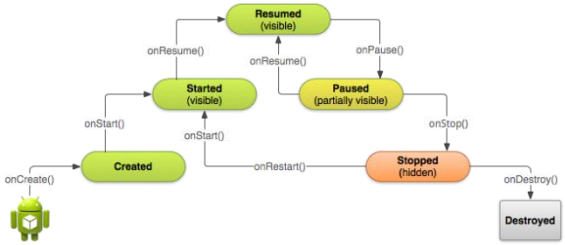



*Figure 1 Life Cycle Android*

*There are several states in the life cycle android that occur as illustrated in Figure 1 Lifecycle Android [8], but only a few of those who become static state include:*

*1. Resumed*

*Resumed occur when the application runs after a paused state. This state will run the command program written in onResume method () (Google Inc., 2014).*

*2. Paused*

*In this state the activity that occurs temporarily suspended but is still visible to the user because there is a process that has a higher priority such as phone calls. Applications can not run any command or displaying anything in this state (Google Inc., 2014).*

*3. Stopped*

*In these circumstances, the application really is not displayed and are not visible to the user but still leaving the service dibackground (Google Inc., 2014).*

*State such as Created and Started temporary and the system quickly run the next state by calling the callback the next life cycle. That is, once the system OnCreate () is called, quickly the system will call the method OnStart (), followed by onResume krmudian () (Schwarz, Dutson, Stelee, & To, 2013).*

### *1.7 Web Services*

*Web service is a software component that is selfcontaining, self-describing modular applications that can be published, allocated and executed on the web. Web services is a technology that converts Internet capabilities by adding a web transactional capabilities, the ability of the web to communicate with the pattern of program-to-program (P2P). The focus of the web has been dominated by the communications program-to-user interactions with business-to-consumer (B2C), while transactional web will be dominated by the program-to-program interaction with business-to-business.*

*The figure below illustrates the building blocks of web service which provides the facility of remote communication between the two applications is a web services layer architecture.*

*1. Layer 1:*

*The Internet protocol standard that is used as a means of transport is HTTP and TCP / IP.*

*2. Layer 2:*

*Simple Object Access Protocol (SOAP) based on XML and is used to exchange information between a group of services.*

*3. Layer 3:*

*Web Service Definition Language (WSDL) is used to describe the service attribute.*

*4. Layer 4:*

*Universal Description, Discovery and Integration, which is a central directory for a description of the service.*

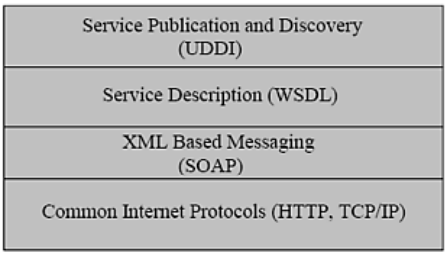



*Figure 1 Block BuildingWeb Services*

### *1.8 Java Script Object Notation (JSON)*

*JSON (JavaScript Object Notation) is a lightweight data interchange format, readable and writable by humans, as well as easily translated and made (generated) by the computer. This format is based on part of the Programming Language JavaScript, Standard ECMA-262 3rd Edition - December 1999. JSON is a text format that is independent of the programming language whatsoever for using a style that is commonly used by programmers family of C including C, C ++, C # , Java, JavaScript, Perl, Python etc. Because of these properties, making it ideal as a JSON-language exchange of data*

## *2. The Content Of Research*

### *2.1 System Architecture Analysis*

*System architecture analysis aims to identify the architecture to be built based on a mobile system. The mobile platform is one of the selected systems to the develoment of this software. Software architectur on mobile platforms describe how interacting software such as illustrated in Figure III-3 software architecture. The image illustrates the overall architecture of the system on mobile platform.*

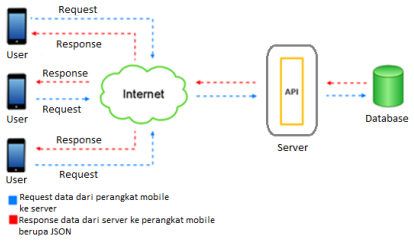



*Figure III- 1 Software architecture*

*The following is a description of the figure III-3 software architecture:*

*a. mobile device users request data to the server via API.*
*b. the Server receiving the request data from a server and determines the type of request that are requested*
*c. If the server receives a request for data text then the server will directly take the existing data in the database.*
*d. after the server receives the requested data to the data will be returned in the form of JSON for processing the user's mobile device.*

### *2.2 Software Requirements Specifications*

*The following software requirements Specification is divided into two non-functional requirements i.e. requirements and functional. Functional requirements can be seen in Tables III. 4 Functional Requirements Specification.*

***Tabel III. 1 Functional Requirements Specification***

| *SKPL Code* | *Software Requirements Specification* |
|---|---|
| *SKPL-F-001* | *Mobile system provides a facility for users to register into the system* |
| *SKPL-F-002* | *Mobile system provides a facility for the user to log into the system* |
| *SKPL-F-003* | *Mobile system provides a facility for users to memTambah cooking recipes cooking recipes into the system* |
| *SKPL-F-004* | *Mobile system provides a facility for the user to see the* |

| SKPL Code | Software Requirements Specification |
|---|---|
| | cooking recipes cooking recipes plus other users |
| SKPL-F-005 | Mobile system provides a facility for the user to see the detail of the cooking recipes cooking recipes plus other users |
| SKPL-F-006 | Mobile system provides a facility for the user to see the detail cooking recipes and cooking methods by using features such as Gesture as Air proximity. |
| SKPL-F-007 | Mobile system provides a facility for users to add rate plus cooking recipes of other users |
| SKPL-F-008 | Mobile system provides a facility for the user to view another user's profile. |
| SKPL-F-009 | Mobile system provides a facility for the user to change user profile |
| SKPL-F-011 | Mobile system provides a facility for users to see video cooking recipes |
| SKPL-F-012 | Mobile system provides a facility for users to find cooking recipes |

### *2.3 Non Functional Requirements Specification*

*On the software that is built can be seen in Tables III. 5 a Non Functional Requirements Specification.*

***Tabel III. 2 Non Functional Requirements Specification***

| SKPL Code | Non Functional Requirements Specification |
|---|---|
| SKPL-NF-001 | The system is built in the form of mobile |
| SKPL-NF-002 | The system was built using the android operating system minimum version 4.2.2 Jelly Bean |
| SKPL-NF-003 | The system was built using the camera |
| SKPL-NF-004 | The system was built to the specifications of the hardware that meets the minimum standard requirements |
| SKPL-NF-006 | The design of the user interface on the software to be built refer to design guidelines android from google |
| SKPL-NF-007 | The system does not allow content that contain elements of sara, pornography and the norms of decency. |
| SKPL-NF-008 | The software to be built should generate standard file format (json) which could be used by outside parties interested parties. |

### *1.2 Non Functional Requirements Analysis*

*Analysis of non-functional needs analysis on these systems include software analysis, analysis of hardware and device thought.*

*1. Product Requirement*

*The following is a non-functional requirement based on the classification of the product requirement.*

a. *SKPL-NF-001 System built in the form of mobile.*
b. *SKPL-NF-002 System built at least using the android operating system version 4.2.2 Jelly Bean and built with with the minimum*

***software requirements***

*a) operating system (platform).*
*b) Web server XAMPP version 1.1.7 to top as web server*
*c) code editor be sublime text 3.*
*d) Integrated development environment (IDE) in the form of Android Studio.*
*e) Android Development Tools version 22.1.6 as Android plugins Studio.*
*f) Android Software Development Kit as the android framework*

*a. SKPL-NF-003 System built using the camera*
*b.SKPL-NF-004 System was built to the specifications of the hardware that meets the minimum standard requirements such as:*
*a) computer with 512 MB on board VGA*
*b) display with a resolution of 1024x600*
*c) computer with 2 GB of ram*
*d) android devices with 512 ram*
*e android Device) with a resolution of 320x480*

*2. Organisational Requirement*

*The following is a non-functional requirement based on the classification of the Organisational Requirement.*

a. *SKPL-NF-005 Design user interfaces in the software to be built refer to design guidelines android from google*

*3. External Requirement*

*The following is a non-functional requirement based on the classification of the External Requirement.*

a. *SKPL-NF-006 System do not allow content that contain elements of sara, pornography and the norms of decency.*
b. *SKPL-NF-007-built software should generate standard file format (json) which could be used by outside parties interested parties.*

### *1.2 Structure of JSON Data*

*The analysis of the data used in this research is the Object Relational Mapping (ORM). Object relational mapping perform mapping against the tables in the relational database with an existing entity class in object-oriented programming language.*

*The mapping is done ORM will need a bridge form the JSON data format can connect with physical database ORM on the server. The structure of the JSON data format that is used in this research is divided into three, namely the data object, a data array and null data.*

*a. Object Data*

*Format in table 4 the structure of JSON Data Object used when data is received from the server is a single or a data object.*

*Table 2 A JSON Data Structure Object*

| *Struktur data objek* |
|---|
| *{*<br>*"key" : "value"*<br>*}* |

*a. Data Array*

*Format in table 5 the structure of JSON Data Array is used when data is received from the server is a single or a data object.*

| *Table 5 structure of JSON Data Array* *Struktur data array* |
|---|
| *{*<br>*"result" : "value",*<br>*"item" : [{ "key" : "value" },{ "key" : "value" }]*<br>*}* |

*b. Data Null*

*Format in table 6 the structure of JSON Data Null is used when data is received from the server is a single or a data object.*

*Table 6 A JSON Data Structure Null*

| *Struktur data null* |
|---|
| *{*<br>*"result" : "value",*<br>*"message" : "value",*<br>*"status_code":value*<br>*}* |

### *2.6 Analysis Of The Functional Needs Of Mobile*

*Analysis of the Functional needs of the Mobile using use case diagrams to describe the functionality of the perangakat software to be built.*

*1. Use Case Diagram*

*Use Case diagram is modeling to describe behavior (behavior) of the software that will be made. Here is a picture of a III-5 Usecase diagrams. Line connectedness owned use case Send data via API and Retrieve data via API not described to facilitate the reading of the charts.*

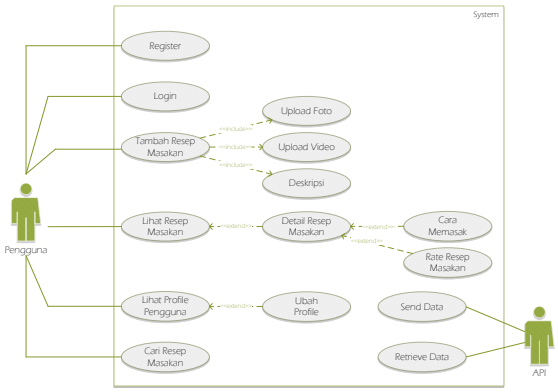



*Figure 2 Use Case Diagram*

### *2.7 Use Case Definition*

*Table 7 lists the definition of a Use Case use case and a short description of the use case.*

*Table 3 Use Case Definition*

| *No* | *Use Case* | *Description* |
|---|---|---|
| *1* | *Register* | *The system displays the register form for the user to register as a member.* |
| *2* | *Login* | *The system displays the login form for the users who consists of email and password* |
| *3* | *Tambah Resep Masakan* | *The system displays the add page Cookbook for user to add cooking recipes* |
| *4* | *Upload Foto* | *The system displays the image upload form for users to upload photos on the menu Plus dishes Cookbook* |
| *5* | *Upload Video* | *The system displays the upload video form for a user to upload videos of cuisine on the menu add a Recipe* |
| *6* | *Deskripsi* | *The system displays the form description for the user to add a caption on the photo that you want to Add cuisine Cookbook.* |
| *7* | *Lihat Resep Masakan* | *The system can display recipes cusine for users to see details of a selected cuisine recipes.* |
| *8* | *Lihat Profile Pengguna* | *System menampilkan page profile dari pengguna* |

| | | |
|---|---|---|
| 9 | Cari Resep Masakan | The system displays a page search cooking recipes which the user |
| 10 | Detail Resep Masakan | System details page displays the selected user cuisine recipes |
| 11 | Cara Memasak | The system displays the page how to cook for the selected user |
| 12 | Rate Resep Masakan | The system displays a page rate the cuisine recipes will be selected users |
| 13 | Ubah Profile | The system displays the change profile page which the user |

### 2.8 The Design Of Data

*Here is the design data of the software being built.*

*1. Diagram of the Relation*

*Here is a Diagram of the Relation of the software being built.*

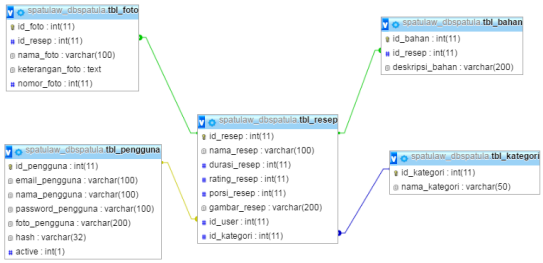



*Figure 3 Relation Diagram*

### 2.9 System Implementation

*Phase implemementasi translation stages is design system based on the results of the analysis into a specific programming language as well as the application software that is built in the real environment. In this stage there is a recommended system requirements.*

*1. Hardware Requirements*

*In table 8 Needs a minimum Hardware recommended hardware requirements directed on the stage of implementation.*

*Table 4 Minimum Hardware Requirements*

| Sub sistem web | Sub sistem mobile |
|---|---|
| Processor core i3 @ 2.30 Ghz | Android 5.0 Lollipop |
| Hard drive 500 GB | TFT LCD |
| 2 GB DDR3 RAM | 5 Megapixels Camera Resolution (Rear) |
| VGA 128 MB | GSM/CDMA |
| Screen resolution 1366x768 Pixels | Data Connection HSDPA/EVDO |
| Internet Connection | A-GPS Support |

*1. Software Requirements*

*In table 9 Needs a minimum of Softwaremenunjukan software is recommended at this stage of implementation.*

*2. Server Requirements*

*In the table 10 Minimum recommended server Servermenunjukan on the stage of implementation.*

*Tabel 5 Minimum Server Requirements*

| Sub sistem web |
|---|
| Web Space 500 MB |
| Bandwidth 50 GB Bulan |
| MySQL Database (5.1 & 5.5) |
| PHP (5.2 & 5.3) |
| CPanel 11.x |
| Apache 2.x mod_deflate |

### 2.10 Testing The System

*The testing phase is done for software built consists of three parts.*

*1. Test Plan*

*System testing to be performed is divided into two stages. The first stage of testing focus to software functionality that is built by using blackbox testing methods. The second phase of testing will focus to assessment users against software built, methods of data collection undertaken is the awarding of the questionnaires to 10 persons citizens of the city of Bandung.*

*2. The results of the Testing Functionality*

*Results of testing the functionality of the software being built looks at Table 11 results of the Testing functionality.*

*Table 6 The Results Of The Testing Functionality*

| Class Test | Test Points |
|---|---|
| Login | Input login data |
| | Validation log |
| Daftar | Input of registration data |
| | Press the list |
| Cari Resep Masakan | Press the Microphone |
| | State the name of the menu |
| Resep masakan dengan Video | Press the video |
| | Showing page |
| Tambah Resep Masakan | Displays the add page |
| | Showing his photos page upload |
| Langkah Memasak | waving hands to the sensor |
| | Showing the steps-step cooking |

| | |
|---|---|
| *"Sensor Proximity* | |

*1.* ***Beta Test Results***

*Table IV. 46. Beta test results data can be fetched some of the conclusion of which*

a. *purpose Of the first retrieved the response from users IE users find it helpful to look at cooking recipes in one application. This is apparent from the results of beta testing for the purpose of the first to get an average score of 4.2*
b. *purpose Of the second retrieved the response of users, namely user find it helpful in navigating in applications with presence of water features such as gesture in seeing the detail cooking recipes. This is apparent from the results of beta testing for the purpose of the first to get an average score of 4.*
c. *the third objective of the retrieved response from users, namely user find it helpful in uploading cooking recipes to share the recipe. This is apparent from the results of beta testing for the purpose of the first to get an average score of 4.1.*

## *3. CLOSING*

*Based on the results of software testing Spatula on the android platform so conclusions are obtained as follows:*

1. *Users can find cooking recipes in one application*
2. *Users can navigate by using the water features such as Gesture*
3. *Users can share cooking recipes to other users and upload photos and videos of cuisine.*

*As for the necessary development again, therefore there are some suggestions that can be used as a blend of software development towards a better growth in support of the user on the application guide this cookery. As for the suggestions towards the development of this application are as follows:*

1. *development of a video Cookbook to be controlled with water features such as Gesture*
2. *development of hand gestures toward the sensor proximity.*
3. *Media chat for users*
4. *develop a platform that can be supported by software, given the currently only supports the android platform.*

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