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EasyCook Mobile Application

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Abstract. The popularity of mobile application has grown so much in recent years. Nowadays, most people have their own smartphone. The main reason why mobile application was so popular was because the number of mobile users is greater than the number of desktop users. Studies show that users prefer mobile application more than mobile websites. This make a strong reason to have mobile application for reaching out to potential and existing customers. The system to be developed in this project is named as EasyCook Mobile Application and only focuses on Malaysian local food recipe. The system will helped user in their coursework as a student, housewife and grocers in their daily life especially for preparing fresh and healthy meal. In addition, user can order the ingredients needed for the recipes based on the size of serving. Besides that, the system enable customer to order item and the item will be delivered to their place. In literature review, the existing system, technique and technology been used is being reviewed. Rational Unified Process(RUP) methodology and UML technique are being used to develop the system. AngularJS is used as programming languange and Firebase is used as database.

Keywords: Android, Mobile application,Recipes,Ingredients.

1.0 Introduction

In recent years, globalization has transformed the world, boosting economic growth and connecting developed and developing countries. The use of technologies in everyday life become more favored by many peoples because it is more efficient, make the work easier and can save their time and energy. Almost all the peoples nowadays more preferred to apply the technology to manage their work by using mobiles phone during most of their activities every day that are not limited only for communication. There are hundreds of mobile phone models that have their own unique functions .The growing demand for mobiles encouraged the development companies to develop creative and dynamic mobile application with different features, themes and concepts. As a result, mobile phone technology is experiencing rapid growth not only in Malaysia but throughout the world. A mobile application called EasyCook was developed to guide students, housewives or other peoples and assist them to find a good and delicious recipes and buy groceries that they want without need to go out.

2.0 Problem Background

Food is something that we consume in our daily life as it be one of human beings ' favourite obsessions. It is important to take food as it need to be our source for getting an energy. For every food that we eat or cook, we did not know the total of the calories for each dishes that we take. So we will assume that all the food we take is still healthy. But in fact, we may be eat the wrong foods. Plus, many of us are less sensitive to the total of calories in the food that we are taking on a daily basis.

Furthermore, most people spend a lot of time with food: busy organize and prepare meals, daydream about what's for lunch or dinner and eating the food. So, some of us have difficulty in finding a recipe or a lack of ideas in serving food on a daily basis .As a result of the lack of ideas to diversify the types of food, we become tired of having to have the same meal every day. A study based on responses from 1000 children and 1000 parents in British found that almost half of the youngsters never or rarely help their parents in preparing meals. The same study revealed that a third of parents had learned to cook from their own parent. This shows that those youngsters do not help their parent to prepare meal are lack of culinary skill. Refer to the recipe book is one of the best ways to improve their culinary skill. However, most of the culinary recipe book are thicker and heavy to carry, so the some people prefer to view recipe through mobile application instead of they need to read a recipe book.

Next, several recipe mobile applications is not really suitable for Malaysian because the type of foods more likely in western style. In addition, some of us have difficulty to assume the correct quantity in preparing the ingredients. Besides, many of us who do not kno w about the tips that can be practice in our daily cuisine. Furthermore, as a result of unpredictable weather, make we are lazy to get out of the house to buy ingredients that are in need and sometimes some of us does not have transportation to buy the ingredients.

3.0 Methodology

The Rational Unified Process (RUP) was selected as a system development methodology. RUP consists of four phases of development, each of which is organized into a number of separate iterations. In the inception phase, the basic activities in this phase were express clearly the project scope, plan and prepare business cases. While in the elaboration phase, the project's needs was analysed in more details and define its architectural foundation. The use case also was refined and prepared the construction phase. In construction phase, application design and source code was created. This phase is more concerned with the implementation and construction of the product. The basic activities for this phase were component development and acceptance criteria test development. The last phase is the transition phase. In this phase, the system was delivered to end users, and the system was installed in working environment and the system was adjusted based on user feedback.

4.0 Proposed System Design

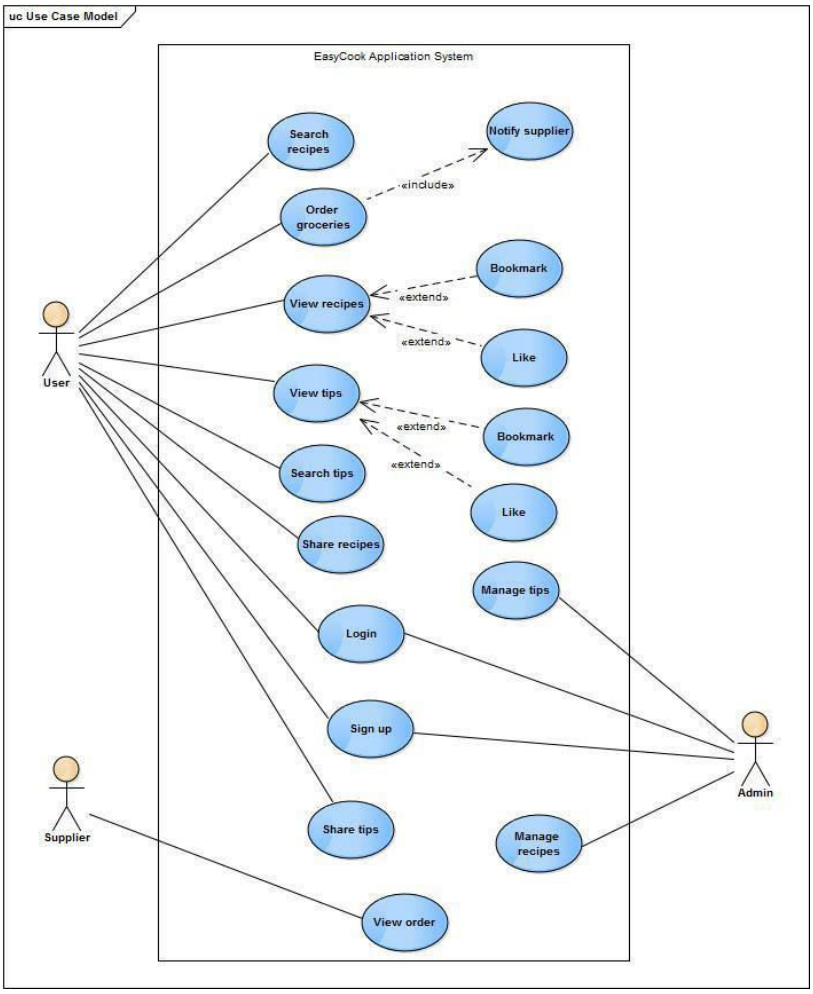

Figure 1 : The use case diagram for EasyCook application

Proposed system functional requirements are defined using UML modelling. The complete software requirements specification documentation have been developed that consist of three sub models use case, sequence and activity model. According to what was discussed in chapter 1 and chapter 2, the main features that should be emphasized in this application have been identified as indicated in Table 1

Table 1 : Main features of the application

Statement	Requirement
This application allow user to search view selected recipes or tips.	i) To view the content of the application
This application allow supplier of groceries to sell and deliver their goods.	ii) Supplier receive order
This application allow user to interact interactively among each others	iii) Reach the social networks and give response
Test the application to ensure all the system requirements are met	iv) Test the system software

There were a few functional requirement that will be implemented in EasyCook application.

i) **Search and view the selected recipes or tips**- This function allow user to search tips based on category or view the step by step how to cook the selected recipes.

ii) **Order groceries**- This function allow user to order groceries they want and can make payment during the delivery.

iii) **Share recipes or tips to social media**- This function allow user to share recipes or tips to social media such as Facebook and whatsApp.

iv) **Like and bookmark**- This function allow user to comment, like or bookmark the recipes or tips.

v) **Display unit of energy (calories)** - This function display calorie for each recipes. User able to know how much the number of calorie they consume.

vi) **Supplier deliver item ordered**- the item ordered for the recipes will be delivered to the user.

vii) **Maintain the content of the application-** This function allow user and admin to maintain the content of application.

Proposed system application can be operated by three different actors such as Users, Supplier and Admin. Table 2 gives brief description about system actors.

Table 2 : Actor Description

Actor	Explanation
Admin	Admin will manage data recipes or tips and manage the application.
User	User can download this application and can search and view recipes or tips. They also can order groceries by notify the nearest groceries mart and make payment during on delivery. Besides, they can also share the recipes or tips to social media, like or bookmark the recipes or tips they want.
Supplier	Supplier will receive the order and process their order.

5.0 Result

Figure 2 is the main interface for Iron EasyCook application. When users access EasyCook application, this page will be shown user re-direct into login page.

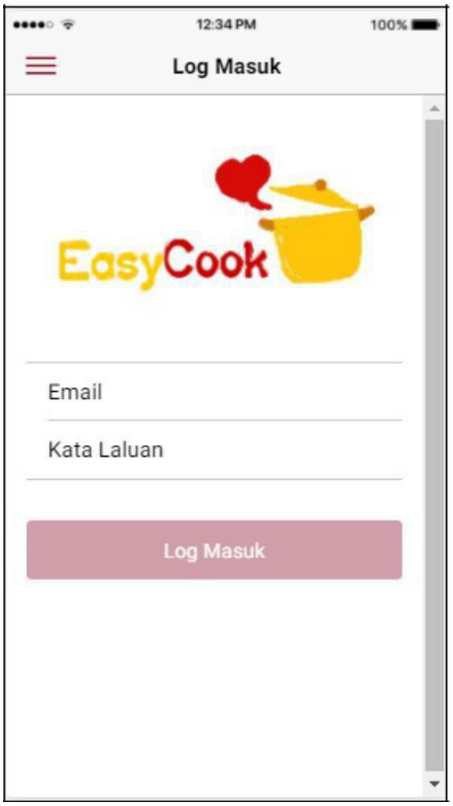

Figure 2 : The Login PageEasyCook mobile application

Figure 3 : The Add Recipe PageEasyCook mobile application

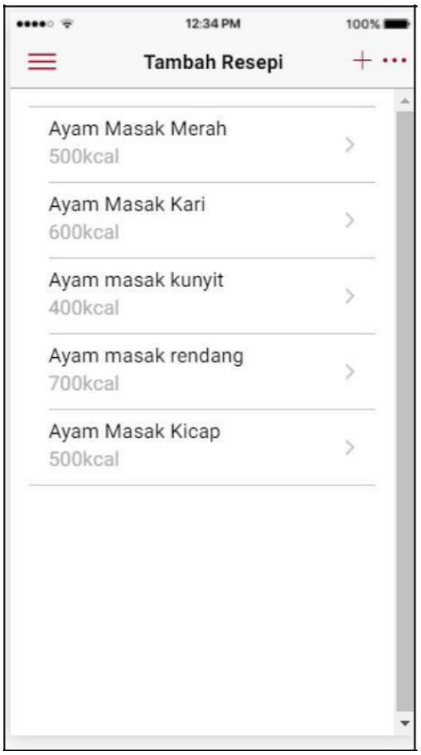

Figure 4 : The **"**Resepi Saya**"** Page

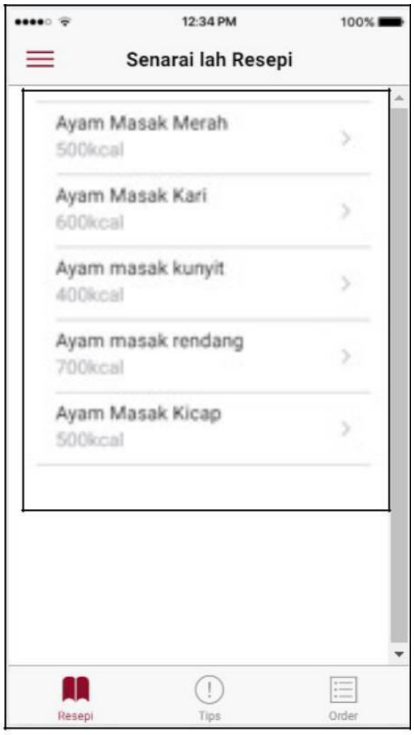

Figure 5: The List of Recipes

The comparison will provide the strength and weakness of both systems in terms of functionality, scope and technology used. There are many differences between proposed and existing systems in term of availability, functionality and others. Every system has its own specific scope and functionality. Table 3 shows the comparison between the systems.

Table 3 : Comparison between existing system with my proposed system

Comparison subject	My Chef Offline-	Resepi Western	EasyCook Mobile
Share recipes	No	Yes	Yes
Share tips	No	Yes	Yes
Comment	No	No	No
search recipes	Yes	Yes	Yes
search tips	No	No	Yes
like	No	No	Yes
display calories	No	No	Yes
Bookmark	Yes	No	Yes
Display step of cooking	Yes	Yes	Yes
Video mode	No	No	No
OS platform	Yes	Yes	Yes
Order groceries	No	No	Yes
Backend System	Yes	Yes	Yes
Types of food	Yes	No	No
Type of tips	No	No	No

6.0 Discussion and Conclusion

Based on the comparison table in Table 3, we can see that proposed system has centralize the features of several similar apps as much as possible. Example of features that included in the proposed system are sharing, manage own recipes and tips, notify mini mart to order ingredients and others. Besides that, there are 3 user types in the proposed system which are registered user, mini mart owner and admin. The objectives had been achieved to help people to improve their culinary skills and to assist them in daily basis especially in preparing the foods. As a result of this system development, I have create a recipe mobile application that consists and focus on local Malaysian cuisines. This application also make users search, share their recipes and tips among each other and can improve their knowledge and culinary skills. Users can add, edit and delete their own recipes and tips. Next, users can view the ingredients and method on how to cook the

food. Besides, this application also can notify the small groce ries mart when the users want to order the ingredients.

This system is still not perfect yet and exist some limitations. Therefore, future improvement is needed in order to make this system more robust. A recommended function can be added in EasyCook mobile application to recommend the recipe to the user based on the same type of food. The category of the recipe should be increased from time to time in order to attract more users to use the system. Next, some fucntions can be added into the system to make the system more socialize and more intelligent such as calculate the calories of the food intake automatically depends on the ingredients used. Last but not least, push notification for user to receive notification when others user update or share their recipes or tips also can be added.

As a conclusion, this system had successfully achieved all the objectives which had been set intially. This system has been developed users especially housewives and students who have difficulty in order to find a good and delicious recipes. It is believed that this system able to improve their culinary skills. The owner of groceries mart can have a free platform to promote their goods. Last but not least, the future recommendation can be carried out to enhance the effiency of this system.

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