

E-Commerce Organic Food Application

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ABSTRACT

Organic foods are very beneficial to health. Organic foods are foods that are free from chemicals. Chemicals found in fertilizers and pesticides cause many diseases in humans, and they do not lead to weak immunity. Creating Android mobile application for organic food by using android studio as application, SQLite as database, java as languages, trade is very useful, as it makes it easier for people to obtain all organic products in one place and reliably, and helps people encourage changing their lifestyle and consuming organic food instead of non-organic food. The project aims to expand knowledge about organic products and facilitate access to them, which will improve the health of individuals. Information and data that help in this study were collected in several ways, including a personal interview, a survey, and by reading some reliable articles. The method used in developing the application is the incremental method. There are many results that are expected to occur after the completion of designing, implementing, and publishing the application. The demand for this type of application will be guaranteed, based on information and statistics through data collection through the survey. Everyone who answered the survey indicated their desire to obtain organic products and that they are excited about this type of application that will help them and finally change their lifestyle for the better. Also, in the case of consuming organic products, the general health of individuals will improve, and thus increase immunity and decrease the incidence of diseases, and this seems to lead to an increase in the rate of living of people.

Introduction

The Pairidaeza Organic Food Store application is an application designed for the benefit of the Al Zahed corporation, and it is an application for selling organic products, as the application works with an Android system and a SQLite database. Al Zahed corporation faces the problem of lack of demand for organic food due to several reasons, including the difficulty of obtaining guaranteed and quality organic products and the lack of awareness among people about the importance of organic food, so the average purchases on organic food became low and did not achieve the goal of the institution, and this certainly leads to an imbalance in the budget of the institution and also Dependence on inorganic foods leads to a significant impact on the health of individuals.

The Pairidaeza Organic Food Store application contributes to facilitating individuals' access to reliable and licensed organic foods of high quality in one application, and thus the demand for organic foods will increase, thus improving the budget of Al Zahed corporation and also improving people's health.

Literature Review

The Android studio application is available on Google for free and has many tools used to develop the application. The Android SDK carries a lot of tools that help in the task of Android development. There are many limitations in the SDK such as that it does not support the Bluetooth system, that the emulator emulates the general behavior of the phone, that it is not an actual device, and that peripherals such as the camera do not fully function. Phone calls are simulated, but cannot be made, and text messages are simulated, but they do not use a real network (Esmaeel, 2015)

Android studio is specially designed with inter-app to offer many specific features and functions. Apps are built via the Android SDK, using Android IDEs, or using a browser-based platform. The method of sending and receiving arguments between developed applications was discussed, as well as the importance of the results. Applications are developed via Android Studio App Inventor development platforms (Allison & Fuad, 2016).

Neil Smyth discussed Activities, Procedures, Parts, Services, Objectives, Manifest File, and Android Application Resources where a collection of elements can be collected to enable the creation of an Android Application. Data is shared between applications by content providers. Activities focus on all areas a user uses in the application. The user interface screen is often one, but sometimes it is one or more parts. Background processing is handled by services and broadcast receivers. The context of an Android application is represented by the application's resources when it runs in the manifest file. (Smyth, 2022)

Discuss S.T. Bhosale, Miss. Tejaswini Patil and Miss. Pooja Patil what is SQLite, as it is a caliber of a database for storing data and is easy to use and supported by many platforms, but it is used more in Android applications because SQLite is flexible and uses a wide range. SQLite has a small open source kernel that facilitates the insertion and copying of data and files into an SQLite database and also facilitates the transfer of files to other platforms (Bhosale & Patil, 2015).

Sowmya B J, Srinidhi Hiriyannaiah, and K.G. Srinivasa discuss about Software engineering and software stages such as requirements analysis, planning, scheduling, design, testing, deployment and other important steps as project stages, where open source tools are used to work on all stages of the project to be created. Software engineering is very important to be able to understand the principles to be created. Software engineering is important to be able to understand software development principles and practices in the software industry and develop it in a real-time environment (J, Hiriyannaiah, & K.G. Srinivasa, 2015).

Method

There are several principles and practices that will guide the best way to organize a project and to ensure optimal performance, which is called the project management methodology. There are three types of methodology: Agile, Linear and Iterative. Incremental methodology will be used and Incremental model is a type of iterative methodology.

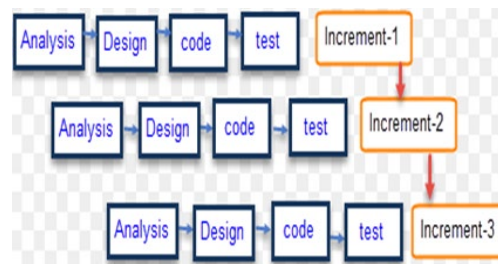


Figure 1. Incremental model

The phased approach contains many of the processes used to develop the software, where the processes used to develop the software can be divided into small parts that are represented in several steps and can be easily managed. Improvements are made step by step. This type has many advantages when using it, such as the ease of resolving errors or adding new requirements.

When working with an incremental model, there are several steps that must be followed, namely:
Requirements analysis:

It is the first step that must be taken when developing the product or project, in which the initial requirements of the project or system requirements are understood by collecting the functional and non-

functional requirements from client, and then collecting all the requirements in a file and sending it to the client until he approves them or makes amendments to them.

To initiate this step, an interview was held with the director of the Al Zahed Corporation and some of the employees in the institution in order to understand the main problem facing the institution and propose appropriate solutions for it through the application. Until he approves it, or if there are any additions to the application that he wants to add, and thus I made sure that the two parties (the programmer and the director of his ascetic foundation) understood the intentions of some, and a compromise solution was reached that satisfies both parties.

Design and Development

At this stage, the system functions are designed and developed. In the beginning, the product engineer develops the project using the document that was prepared in the previous step and approved by the customer. At this stage, some diagrams are drawn like context diagram, DFD diagram, the project plan and an initial prototype for designing the application.

Other. Preparing diagrams is crucial as they help in understanding the system and its relationships. Some diagrams are intended to understand the processes that occur between the system and the entity, such as the context diagram. Also, the process of writing codes takes place at this stage.

The Test

At this stage, the codes that have been written are tested to see what if it works as planned, the performance of each function in the system is verified by various test methods. The code is moved to the test environment after the developers perform initial testing to ensure the integrity of the project.

Execution

This is the last stage. In this stage, the application is ready to work and for real use by end users.

Results

To find out the opinion of users and take their opinions for a preliminary conclusion whether the application will succeed or not, a survey was conducted as shown in the screenshots below.

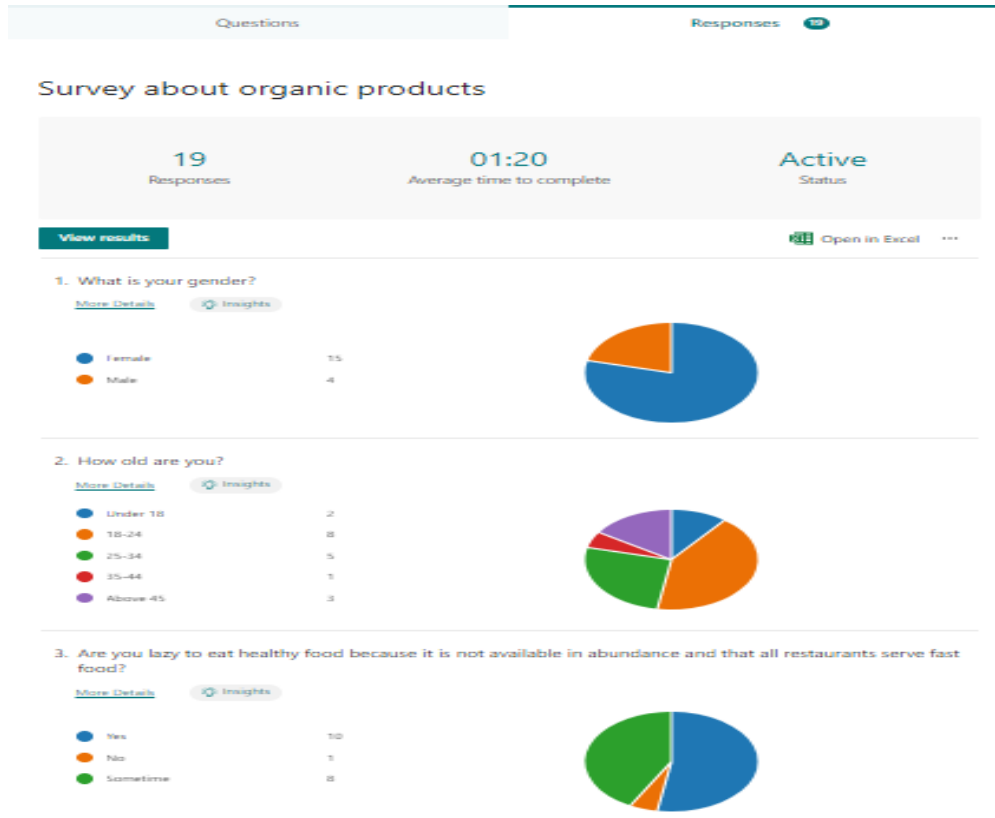


Figure 1. Survey questions



Figure 2. Survey questions

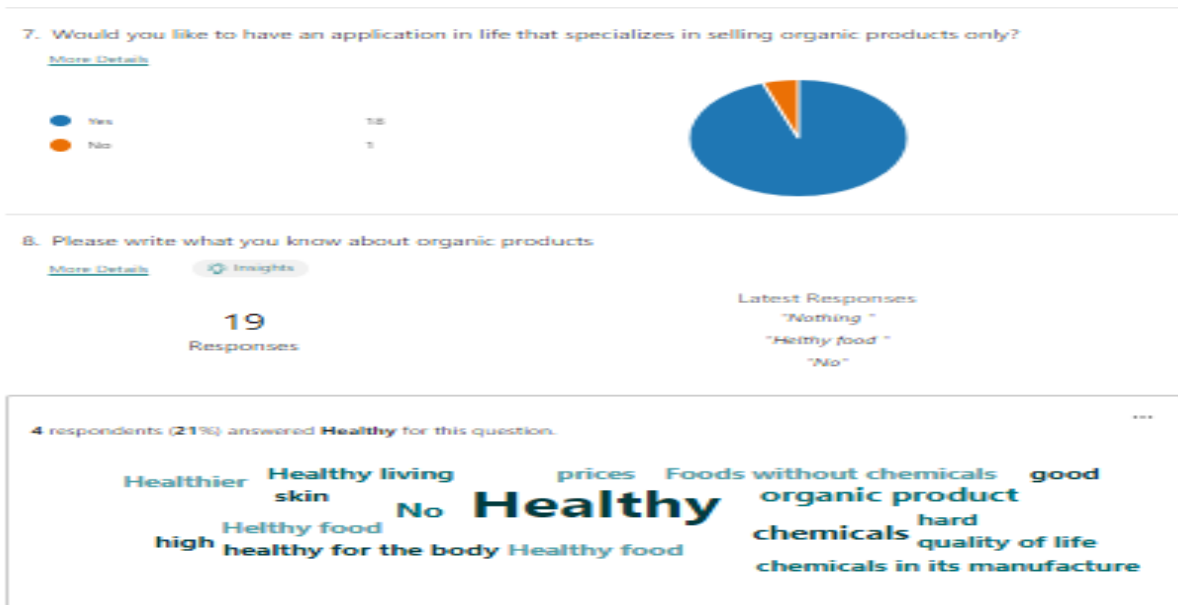


Figure 3. Survey questions

Discussion

I got 19 responses with most of the responses being female. I got responses from people of different age groups. Most people agreed that they are lazy to search for organic products because it is difficult to obtain them, and therefore they eat restaurant food. Three-quarters of the people agreed that they want to change their lifestyle to one that is free of chemical products. Some people know organic products, but the largest percentage of people do not. All the people who answered the questionnaire agreed that they would like to have a mobile application dedicated to selling organic products. Through the open question, it was found that some define organic products as healthy, others know that they are expensive, some say they improve the complexion, and a number of people just said that they do not know anything about organic products.

I expect, through the results of this questionnaire, that the mobile application of organic products that I will design will receive success and acceptance by people, based on the results that prove people's desire to change their diet to obtain better health. What prevents them is the difficulty of obtaining organic products.

Conclusion

Fortunately, the creation and development of an easy-to-use application that specializes in displaying and selling organic vegetables and fruits paves the way for users to get a life with less diseases and better health, which leads to a longer life. In a better way, human infection with diseases will decrease, and most diseases will disappear as a result of the efficiency of the work of people's body systems will work better, and people will have strong immunity that protects them from disease, or even the speed of recovery from them will be faster.

In the future, the application will be developed and will be available for iOS devices, and many foodstuffs and very many items will be added so that people can rely on shopping from this application entirely for foodstuffs and will not be limited to vegetables and fruits.

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