Farmers E-Digital Marketing

Sudhakar P[1], Vigneshwaran J[2], Thangathamil A[3], Ramasamy S[4]

[1,2,3]Student, Department of Computer Science and Engineering, Hindusthan Institute of Technology
[4]Mentor, Department of Computer Science and Engineering, Hindusthan Institute of Technology

ABSTRACT

The role of the project is to develop a webpage for admin (farmer) to add the farmer items from field for online shopping. The item is added under four different categories such as vegetables, fruits, grains and spinach. The items are added under any one of the category. The user will be provided with android application to view all the added items where shopping can be carried out. The usercan view all the items or search the needed items as per the category

CHAPTER-1
INTRODUCTION

As we step forward into the modern era of technology, we may find many engineering related applications very beneficial for improvements into the society. This is the world of technology where people use smart phones for completing theirdaily tasks like shopping, paying bills, managing work and much more. The idea ofthis project is to add its features into the lives of the people so that the food which they buy can be bought directly from the farm so that the profit can reach directly tothe farmers.

CHAPTER-2
OBJECTIVE AND SCOPE OF PROJECT

In our day to day life we consume food and our survival is based on mainly food. A considerable amount of our food is coming from farms and other means too. These farmers do their hard work for growing and serving many lives across the country, which pays for their source of income. But due to intermediates in the selling of their final products the farmers are unable to make their profit and mostlylive poor. By this project we will be able to connect farmers directly to the customerso that direct dealing of products can be accomplished. This will result in asignificant decrease in the prices of the products currently available in the market aswell as the profit will directly reach the farmers pocket.

CHAPTER-3
ABOUT THE SOFTWARE
3.1 Android Studio

Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download onWindows, macOS and Linux based operating systems. It is a replacement for the Eclipse Android Development Tools (ADT) as primary IDE for native Android application development. Android Studio was announced on May 16, 2013 at the Google I/O conference. It was in early access preview stage starting from version 0.1 in May 2013, then entered beta stage starting from version 0.8 which was released in June 2014. The first stable build was released in December 2014, starting from version The

current stable version is 2.5.3, released in June 2017. Next major update, version 5.0, is   in preview stage as of September 2017.

Features of Android Studio

1-Gradle-based build support

2-Android-specific refactoring and quick fixes

3-Lint tools to catch performance, usability, version compatibility and otherproblems.

4-ProGuard integration and app-signing capabilities

3.2 JSON

JSON (JavaScript Object Notation) is a lightweight data-interchangeformat. It is easy for humans to read and write. It is easy for machines to parse and generate. It is based on a subset of the JavaScript Programming Language, StandardECMA-262 3rd Edition - December 1999. JSON is a text format that is completelylanguage independent but uses conventions that are familiar to programmers of the C-family of languages, including C, C++, C#, Java, JavaScript, Perl, Python, and many others. These properties make JSON an ideal data-interchange language.

JSON is built on two structures:

- A collection of name/value pairs. In various languages, this is realized as an
- *object*, record, struct, dictionary, hash table, keyed list, or associative array.
- An ordered list of values. In most languages, this is realized as an *array*,vector, list, or sequence.

3.3 GRADLE

Gradle was released in 2007, It is a popular open-source automated build system that makes working on large projects easier. It's based on concepts from its predecessors Apache Maven and Apache Ant, but uses a Groovy-based domain specific language (DSL) and Java, instead of XML.

It speeds up the build process by skipping unnecessary re-execution of up-to-date projects part of larger project trees. It also makes adding different libraries to a project easier by using just one line of code.

Gradle is the official build system for Android Studio, and as Android Studio users, most configuration happens automatically. Gradle is an automated build toolkit that allows the way in which projects are built to be configured and managed through a set of build configuration files. This includes defining how a project is to be built, what dependencies need to be fulfilled for the project to build successfully and what the end result (or results) of the build process should be. Thestrength of Gradle in the flexibility that it provides to the developer.

3.4 WORKING WITH ANDROID STUDIO

By default, Android Studio displays your project files in the Android project view. This view shows a flattened version of your project's structure that provides quick access to the key source files of Android projects and helps user work with the Gradle-based build system.

- Shows the most important source directories at the top level of the module hierarchy.
- Groups the build files for all modules in a common folder.
- Groups all the manifest files for each module in a common folder.
- Shows resource files from all Gradle source sets.

Open Android Project View

The Android project can be opened by selecting the respective link from the menu, which will create a working page and coding page for the user.

OPENING ANDROID
3.5 Android Build System
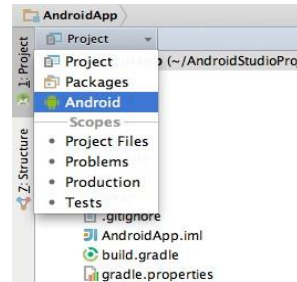
The Android build system is the toolkit user use to build, test, run and packageyour apps. This build system replaces the Ant system used with Eclipse ADT. It canrun as an integrated tool from the Android Studio menu and independently from thecommand line. User can use the features of the build system to:

- Customize, configure, and extend the build process.
- Create multiple APKs for your app with different features using the sameproject and modules.
- Reuse code and resources across source sets.
- The flexibility of the Android build system enables user to achieve all of thiswithout modifying your app's core source files.

Features

- Gradle-based build support.
- Android-specific refactoring and quick fixes.
- Lint tools to catch performance, usability, version compatibility and otherproblems.
- ProGuard integration and app-signing capabilities.
- Template-based wizards to create common Android designs and components.
- A rich layout editor that allows users to drag-and-drop UI components, optionto previeWlayouts on multiple screen configurations.
- Support for building Android Wear apps
- Built-in support for Google Cloud Platform, enabling integration with GoogleCloud Messaging and App Engine.

TAB LAYOUT

In Android Tab Layout is a new element introduced in Design Support library. It provides horizontal layout to display tabs on the screen. We can display more screens in a single screen using tabs. We can quickly swipe between the tabs. Tab Layout is basically view class required to be added into our layout(xml) for creating Sliding Tabs. We use different methods of Tab Layout to create, add and manage the tabs.
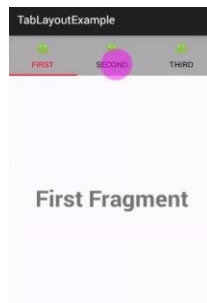
Navigation Drawer

In Android, Navigation Drawer is a panel that displays App's Navigation option from the left edge of the screen. It is one of the most important and useful UI patternintroduced by the Google for developing Android app.Navigation drawer is a side menu that helps us to organise the navigation inside our app. It is a uniform way to access different pages and information inside our app. It is hidden most of the time but is revealed when we swipes from left edge of the screen or whenever we click on menu/app icon in the action bar.
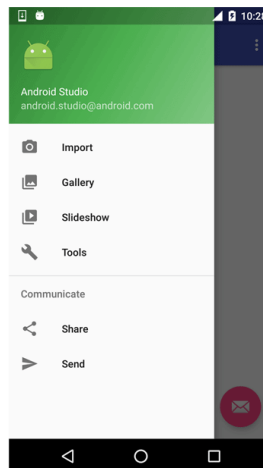
Wamp Server

WampServer is a Windows web development environment. It allows you tocreate web applications with Apache, PHP and the MySQL database. It also comeswith PHP My Admin to easily manage your databases. **WampServer** installs automatically (installer), and its usage is very intuitive.

It's a free (open source)applications, combined with Microsoft Windows, which arecommonly used in Web server environments. The WAMP stack provides developers with the four key elements of a Web server: an operating system, database, Web server and Web scripting software. The combined usage of these programs is calleda server stack. In this stack, Microsoft Windows is the operating system (OS), Apache is the Web server, MySQL handles the database components, while PHP, Python, or PERL represents the dynamic scripting languages.

Features

- Manage your Apache and MySQL services
- Switch online/offline (give access to everyone or only localhost)
- Install and switch Apache, MySQL and PHP releases
- Manage your servers settings
- Access your logs, settings files and alias

CHAPTER-4

4.1 Existing System

In existing system the farmer won't have direct con-tact with customer therefore they have to depend on third party dealers. The cost of the items from farmers to customer will be more as it comes from dealers or market. The farmers also won't get a good profit for their sales. The customer won't get a fresh vegetableor fruits in time. The customer also won't have a facility to conduct famers directly.

Disadvantage in Existing System

- The farmers can't conduct customers directly.
- The cost of the items from agriculture land to customer will become more dueto third party dealers.
- The farmers and customers have to depend on third party dealers thereforeblocking of items in godowns may happen.

4.2 Proposed System

In proposed system the farmers can connect customers directly without any third party dealers which help to get the items from farmers in low cost. The farmerscan connect to the customer through the android application. The customer can viewthe items in the list and as per the need, the items can be placed for order. The customer can get day to day fresh vegetable and fruits directly from farmers with outdealers which will reduce the cost. After placing the order, the customer also has a facility to track the order by knowing the current location of the truck though googlemap.

Advantage of Proposed System

- The farmers can get the conducts of the customers directly from the android application.
- The cost of the items from agriculture land to customer will become less dueto absence of third party dealers.
- The third party dealers can't block items in godowns therefore rising of cost can be reduced.
- The farm admin can get the conducts of the customers directly from the android application which helps to send of notification of offer directly to thecustomers.
- The admin can get a notification once the order placed by user through android application.
- The order can be processed for delivery, as per the season the cost of the farmitems can be updated by the admin.

CHAPTER-5
SYSTEM DESIGN

The project is designed to fulfill the needs of both farmer and customer in effective manner to bring fresh vegetables and fruits in correct time. The role of theproject is to develop a webpage for admin (farmer) to add the farmer items from field for online shopping. The item is added under four different categories such as vegetables, fruits, grains and spinach. The items are added under any one of the category. The user will be provided with android application to view all the added items where shopping can be carried out. The user can view all the items or search the needed items as per the category.

Admin Modules

Admin Login

The farmer will act as an admin to add new item into the database. The webpage will be secure in maintaining all details regarding category and items. Theadded items will be viewed by customer through android application.

Add Category

The admin can add new category which helps to add items under the corresponding category. The details such as category name and category image areadded to the database. By default the category such as vegetables, fruits, grains andspinach are available to add the items in the database.

Add Items

The new item is added to the database under the corresponding category by the farmer. The details such as item name, cost, sample image, description and quantity are added to the database. The description contains both English and Tamilwhich helps to view by all customers.

View Order

The order placed by the customer can be viewed by the admin. The details such as item list, cost and quantity details are viewed by the admin. As per the order,the delivery will be carried out.

User Modules

View Items

The list of added items can be viewed by the customer through mobile application. The item contains item name, cost and sample image are viewed by thecustomers. The customer can select the respective item to view overall description and benefits of fruit and vegetable in both Tamil and English.

Search by Category

The customer can search the needed items by selecting the corresponding category. The customer can select any one of the category such as vegetables, fruits,grains or spinach. The selected category brings the list of items available which canbe added to the cart.

Place Order

The needed items can be added to the cart. The cart contains the list of item and cost of overall selected items. The delivery contact details will be entered by thecustomer. The order get delivered to the corresponding contact details.

DATA FLOW DIAGRAM

1 - Level 0
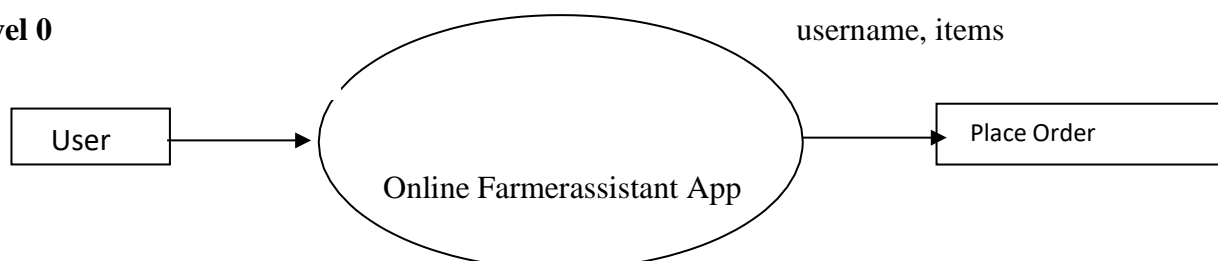
CHAPTER-6
SYSTEM TESTING

Testing is vital to the success of the system. System Testing makes a logical assumption that, if all the parts of the system are correct, the goal will be achieved. Its basic function is to find the errors in the software

by examining all possible loopholes. The goal of testing is to point out uncover requirements, design or coding errors or invalid acceptance or storage of data.

A Strategy for software testing integrates software test case design methods into a well planned series of steps that result in successful construction of software.Testing is a set activity that can be planned in advance and conducted systematically.

A number of software testing strategies have the following criteria:

- Test begins at module level and works outward the integration of computer-based system.
- Different testing techniques are appropriate at different points in time.
- The software developer and an independent test tool conduct testing.
- Testing and debugging are different activities, but debugging must beaccommodated in any test strategy.

  There are different types of system testing

- Unit Testing
- Integration Testing
- Validation Testing
- Acceptance Testing

Unit Testing

In unit testing each module is tested individually. It focuses the verification efforts on the smallest unit of software in the module. This is known as module testing.The modules such as farmer items add, place order and deliver order are tested separately with valid input and output. If the order placed beyond the stock quantity,the testing will be occurred this tells the message "stock overflow". After testing allmodules, the process leads to integration testing.

Delivery Status Update

As soon as the order reaches, the admin will receive the notification. The notification helps to view the order and

status get updated. The delivery status helpsto know the current status of order by both admin and customer.

CHAPTER-7
CONCLUSION

Thus the application is designed in a user friendly manner. All categories of users can make use of the application in effective manner. The project is designed to connect farmers and customer directly without the third party dealer. The farmers won't get a good profit, if they depend on third party dealer for sales. The famers can register their personal details and their items which are going to sale in Mandi. The role of the project is to develop a webpage for admin (farmer) to add the farmeritems from field for online shopping. The item is added under four differentcategories such as vegetables, fruits, grains and spinach. The items are added underany one of the category. The customer can get the items directly from farmer as a fresh and thus the customer can get the delivery in time.

CHAPTER-8

REFERENCES

1. Alan Forbes, "The Joy of PHP Programming: A Beginner's Guide to Programming Interactive Web Applications with PHP and MySQL" 5th Edition, Plum Island, 2019.
2. Tom Butler & Kevin Yank, "PHP & MySQL Novice to Ninja", 6th Edition,SitePoint, 2020.
3. Lynn Beighley & Michael Morrison, "Head First PHP & MySQL", FirstEdition, O'Reilly, 2018.
4. Vikram Vaswani, "PHP: A Beginner's Guide", 5th Edition, McGraw-HillEducation, 2019.
5. Robin Nixon, "Learning PHP, MySQL, JavaScript, & CSS: A Step-by-StepGuide to Creating Dynamic Websites", 2nd Edition, O'Reilly, 2019.

Referred Websites

1. www.phptutorial.codepoint.net
2. www.tuxradar.com/practicalphp
3. www.makeuseof.com
4. www. php.net
5. www.mysql.com
6. www.dbninja.com
7. www.devmysql.com