**DECLARATION**

I hereby certify that the project entitled **“E-Agriculture”** by Dinesh.S (Reg.No.1532J0004) in partial fulfillment of requirements for the award of degree of M.Sc. Software Systems submitted in the Department of Software Systems at **KG COLLEGE OF ARTS AND SCIENCE** under **BHARATHIAR UNIVERSITY** is an authentic record of my own work carried out under the supervision of Mr.P.KalaiKannan MCA., M.Phil., Assistant Professor, Department of Electronics and Computer Systems. The project presented has not been submitted by me in any other University / Institute for the award of M.Sc. Software Systems Degree.

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Dinesh.S

(Reg.No. 1532J0004)

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Guide’s Name : Mr.P.KalaiKannan MCA., M.Phil.,

Guide’s Designation : Assistant Professor

Guide’s Signature :

Head of the Department

(Department of M.Sc. Software Systems)

**CERTIFICATE**

This is to certify that this is the Bonafide Project work done by the candidate under supervision in partial fulfillment of requirements for the award of M.Sc. Software Syestems

Dinesh.S 1532J0004

**Name of the Candidate Register Number**

------------------------------ ----------------------------Signature of the Guide Signature of the HOD

Place:

Date:

------------------------------- (College Seal) Signature of the Principal

Submitted for the Viva – Voce Examination held on

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**ACKNOWLEDGEMENT**

I express my sincere thanks to **Dr. Ashok Bakthavathsalam, BE., MS.,** Managing Trustee and **Mrs. Divya Ashok** Trustee, KG College of Arts and Science for giving me an opportunity to undergo this course of study and to undertake this project work.

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**SYNOPSIS**

The software “E-Agriculture” was developed using HTML, CSS, JavaScript, JQuery, Bootstrap as Front end, NodeJS as Server side, MongoDB as Backend. This software is used for farmers who want to fix prices for their own products. In today’s environments, it’s always good when farmers fix prices for their own products. It’s definitely worth the effort, time and investment of the farmers. This software overall, is useful for anyone who wants to buy fresh products from farmers. If this software present in production, farmers problems may be reduced. This software is also used for the direct sellers and buyers. It allows users (sellers) to directly sell their product in online and buyers (traders) directly products in online. It helps traders to directly go and visit the sellers place to buy the product with more satisfaction. Important and good thing is, there is no intermediate between seller and buyer. It helps the farmers to get more profit.

**CHAPTER - I**

**INTRODUCTION**

**1.1 OVERVIEW OF THE PROJECT**

The software “E-Agriculture” was developed using HTML, CSS, JavaScript, JQuery, Bootstrap as Front end, NodeJS as Server side, MongoDB as Backend. This software is used for farmers who want to fix prices for their own products.

In today’s environments, it’s always good when farmers fix prices for their own products. It’s definitely worth the effort, time and investment of the farmers. This software overall, is useful for anyone who wants to buy fresh products from farmers.

This software is also used for the direct sellers and buyers. It allows users (sellers) to directly sell their product in online and buyers (traders) directly products in online.

This software has lot of features like Map view, Live chat, Mailing, etc. Non-educated person can also easily use this software.

**1.2 NEED OF THE PROJECT**

In today’s environments, it’s always good when farmers fix prices for their own products. It’s definitely worth the effort, time and investment of the farmers. This software overall, is useful for anyone who wants to buy fresh products from farmers. If this software present in production, farmers problems may be reduced.

**1.2.1 E-Agriculture as an Open Source Software(OSS)**

Open-Source Software (OSS) is [computer software](https://en.wikipedia.org/wiki/Computer_software) with its [source code](https://en.wikipedia.org/wiki/Source_code) made available with a [license](https://en.wikipedia.org/wiki/Open-source_license) in which the [copyright](https://en.wikipedia.org/wiki/Copyright) holder provides the rights to study, change, and distribute the software to anyone and for any purpose. Open-Source Software may be developed in a [collaborative public manner](https://en.wikipedia.org/wiki/Collaborative_software_development_model). According to scientists who studied it, open-source software is a prominent example of [open collaboration](https://en.wikipedia.org/wiki/Open_collaboration).

[Open-Source Software development](https://en.wikipedia.org/wiki/Open-source_software_development), or collaborative development from multiple independent sources, generates an increasingly more diverse scope of design perspective than any one company is capable of developing and sustaining long term.

**ADVANTAGES OF PROPOSED SYSTEM**

* With E-Agriculture famers can directly sell their products in online.
* It’s ideal for creating software for farmers to encourage their works.
* User friendliness is provided in the application with various options.
* The system makes farm products selling much easier and flexible.
* E-Agriculture has the advance feature of sending the alert through the mail and also as a notification.
* E-Agriculture has a advantage of viewing the products in map.

**1.3 OBJECTIVES OF THE PROJECT**

The main objective of the project is to help the farmers to fix their own prices for their own products. The proposed system offers farmers to directly their products in online easily.

It helps traders to directly go and visit the sellers place to buy the product with more satisfaction. Important and good thing is, there is no intermediate between seller and buyer. It helps the farmers to get more profit.

It is built with more security like no sharing personal information. It also including the features of seeing the rate of the products all over the India Mandi’s, It allows users to see the daily updates in Mandi’s.

**1.4 The organisation profile**

KG Information Systems Private Ltd, also referred to as KGISL, was incepted under the shrewd leadership of Dr.Ashok Bakthavathsalam, in the year 1994. We started our commercial operations in the year 1996-97. Our company offers a wide range of IT services and BPO services. In our IT services we have software solutions, ECM services, maintenance services, testing services and much more. Our BPO services include data processing service, CRM services engineering design services etc. In nutshell, we are a highly-praised IT consulting firm, which also offers quality BPO services. Solutions or services that we offer are very economical and cost effective. Our company is served by educated, qualified, skilled and competent professionals who are solely dedicated in offering all the aforementioned services in the best possible manner. Aim of our organizations to provide quality services to all our clients so as to offer them utmost satisfaction. With our dedication and hard work, we are very much successful in achieving the aforesaid objective. We have also maintained goodwill in the market and amongst our clients. Our company is renowned for its quality services and excellent clientservicing as our courteous treat our customers with respect and dignity.

**FOSTER INNOVATION THROUGH CONSTANT IMPROVEMENT:**

* **Innovation**: Striving to be the best through being the first in all services and solutions.
* **Quality Service**: Always setting a target to exceed expectations.
* **Diversity**: Stamping the quality mark on a diversified community.
* **Global View**: Focus on the world market for constant improvement.
* **Customer Satisfaction**: Setting a chain reaction of satisfaction in each customer and creating reliability.

**MISSION**

"Creating value for customers by rendering quality products, services and solutions at an affordable cost."

* Will to win in the competitive world by exceeding expectations.
* Achieving the hallmark of success, a platform to attract customers.
* Treating every goal/target as a challenge.
* Creating value at every angle/turn in each of the business units.
* Motivation through team work.

**CERTIFICATIONS**

* KGiSL is an EN ISO 9001:2008 company certified for its compliance to international quality standards and procedures
* Continuing on its ever-consistent pursuit of quality excellence, KGiSL achieved the Capability Maturity Model for Software (CMM) Level 4 certification benchmarking its quality services offerings at a global level
* KGiSL complies to Payment Card Industry (PCI) Data Security Standard
* Oracle, Java & Red Hat Linux certified training partner

# AWARDS & RECOGNITIONS

* Member of Task Force for Information Technology, Government of India
* Member of Task Force for Information Technology, Government of Tamil Nadu
* Chairman (2013), Confederation of Indian Industry (CII), Coimbatore
* Lifetime Achievement Award in Information Technology - Lions Club International
* Best Entrepreneur Award for 2009 - Coimbatore Management Association
* Best ICT Entrepreneur from Tamil Nadu, 2011 - from Chief Minister of Tamil Nadu

**CHAPTER - II**

**SYSTEM ANALYSIS**

**2.1 BACKGROUND STUDY**

System analysis is concerned with the comparison study about the existing system and the proposed system. The system analysis is essential when the software is interfaced with other elements such as other softwares, hardwares, people and other resources. The essential purpose of the place is to find the need and to define the problem that needs to be solved.

**2.1.1 EXISTING SYSTEM**

In the existing system there consists of product which is not easy to search through the products. In this no map view, it is hard to always search the products using keyboard. It is not too popular, one of the reason is not good user-friendly. There is an alert given through the text message through the mail, but there is no notification sent inside the software.

**2.1.2 PROPOSED SYSTEM**

E-Agriculture is the process of providing the online selling platform built specifically to help farmers. In today’s environments, it’s always good when farmers fix prices for their own products. This software allows the farmers to directly post their own products in online. This is software is user-friendly. Alert will be given through the mail and notification will be given in the software. Lot of features like mailing, live chat, map view. Therefore, the main aim of this software is to encourage the farming.

**2.2 SYSTEM SPECIFICATION**

**2.2.1 HARDWARE SPECIFICATION**

The hardware requirements that are required to process the system are as follows:

Processor : Pentium(R) Dual-Core(TM) CPU T4500 @ 2.30GHz

Mhz, 2 Core(s), 4 Logical Processor(s)

RAM : 2.00GB

System type : 32-bit Operating System

**2.2.2 SOFTWARE SPECIFICATION**

Operating System : Windows 7

Front End : HTML 5, CSS 3, JS, JQUERY, Bootstrap

Back End : MongoDB

Server Side Language : NodeJS

**2.2.3 Application Specification**

**FRONT END**

**HTML AND CSS**

**Hypertext Markup Language** (**HTML**) is the standard [markup language](https://en.wikipedia.org/wiki/Markup_language) for creating [web pages](https://en.wikipedia.org/wiki/Web_page) and [web applications](https://en.wikipedia.org/wiki/Web_application). With [Cascading Style Sheets](https://en.wikipedia.org/wiki/Cascading_Style_Sheets) (CSS) and [JavaScript](https://en.wikipedia.org/wiki/JavaScript) it forms a triad of cornerstone technologies for the [World Wide Web](https://en.wikipedia.org/wiki/World_Wide_Web).[Web browsers](https://en.wikipedia.org/wiki/Web_browser) receive HTML documents from a [web server](https://en.wikipedia.org/wiki/Web_server) or from local storage and render them into multimedia web pages. HTML describes the structure of a web page [semantically](https://en.wikipedia.org/wiki/Semantic_Web) and originally included cues for the appearance of the document.

HTML can embed programs written in a [scripting language](https://en.wikipedia.org/wiki/Scripting_language) such as [JavaScript](https://en.wikipedia.org/wiki/JavaScript) which affect the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The [World Wide Web Consortium](https://en.wikipedia.org/wiki/World_Wide_Web_Consortium) (W3C), maintainer of both the HTML and the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

**BACK END**

**MONGODB**

MongoDB is a document database with the scalability and flexibility that you want with the querying and indexing that you need. MongoDB stores data in flexible, JSON-like documents, meaning fields can vary from document to document and data structure can be changed over time. MongDB is a non-SQL language. MongoDB’s document model is simple for developers to learn and use, while still providing all the capabilities needed to meet complex requirements at any scale. MongoDB unleash the power of software and date for innovators everywhere

# APPLICATION SERVER:

**NODEJS**

Node.js is a JavaScript runtime built on Chrome’s V8 JavaScript engine. As an asynchronous event driven JavaScript runtime, Node is designed to build scalable network applications. Node can handle many connections concurrently. Upon each connection the callback is fired, but if there is no work to be done, Node will sleep. This is in contrast to today’s more common concurrency model where OS threads are employed. Thread-based networking is relatively inefficient and very difficult to use. Furthermore, users of Node are free from worries of dead-locking the process, since there are no locks.