VIT®

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

School of Information Technology and Engineering

Department of Software and Systems Engineering

E- Farming Portal

AN PROJECT REPORT

Submitted in partial fulfilment for the award of the degree of

MTech

in

Software Engineering

by

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Submitted to

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SLOT: D1+TD1

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1. Abstract:

Farming is the Prime Occupation in India in spite of this, today the people involved in farming belongs to the lower class and is in deep poverty. The Advanced techniques and the Automated machines which are leading the world to new heights, is been lagging when it is concerned to Farming, either the lack of awareness of the advanced facilities or the unavailability leads to the poverty in Farming. Even after all the hard work and the production done by the farmers, in today's market the farmers are cheated by the Agents, leading to the poverty. Agro-marketing would make all the things automatic which make easier serving as a best solution to all the problems.

E-farming will serve as a way for the farmers to sell their products across the country just with some basic knowledge about how to use the website. The site will guide the farmers in all the aspects, the current market rate of different products, the total sale and the earned profit for the sold products, access to the new farming techniques through e-learning and centralized approach to view different government's agriculture schemes including the compensation schemes for farming. Getting availed to the required information related to the markets and different products can be made possible through the SMS facility provided by the system.

2. Introduction:

E-Farming is a web application developed for farmers. This application gives suppose to the village farmers who want to use this facility and who want to learn how is it possible and how they can use e-farming to sell their products. If the farmers have knowledge of computer then they can directly register in the site and sell their product otherwise they can contact company's computer professional who will schedule classes to teach the basics of computers and internet. They can know how they can open this site and register with it and sell their products online etc.

E-Farming is a project developed to build a website which will help farmers from to sell their products to different cities through online. Farmers can use this facility and can learn how is it possible and how they can use e-farming to sell their products.

E-farming is the web application that will help the farmers to perform the agro-marketing leading to achieve success and increase in their standard of living. The Marketing facility would allow the farmers to have a view of the bills created and the related information in their accounts. An Authorized-agent would serve as a way for the farmers to sell their products in the market.

The Centralized market committee will have control on the Agents through business activities review. Website will also provide market-wise, commodity wise report to the farmer in interactive way. In rural area, the SMS facility would give the required market information where internet cannot be availed. Government will put forward the new schemes for the farmers. Compensation will be provided for the

farmers in case of any loss to the production due to some natural calamities. Unique interface will be provided for applying and viewing the schemes Farmers and the Agents will be provided with a Unique ID for logging into their accounts leading towards secure access.

3. Hardware and Software Specifications:

Hardware Specification

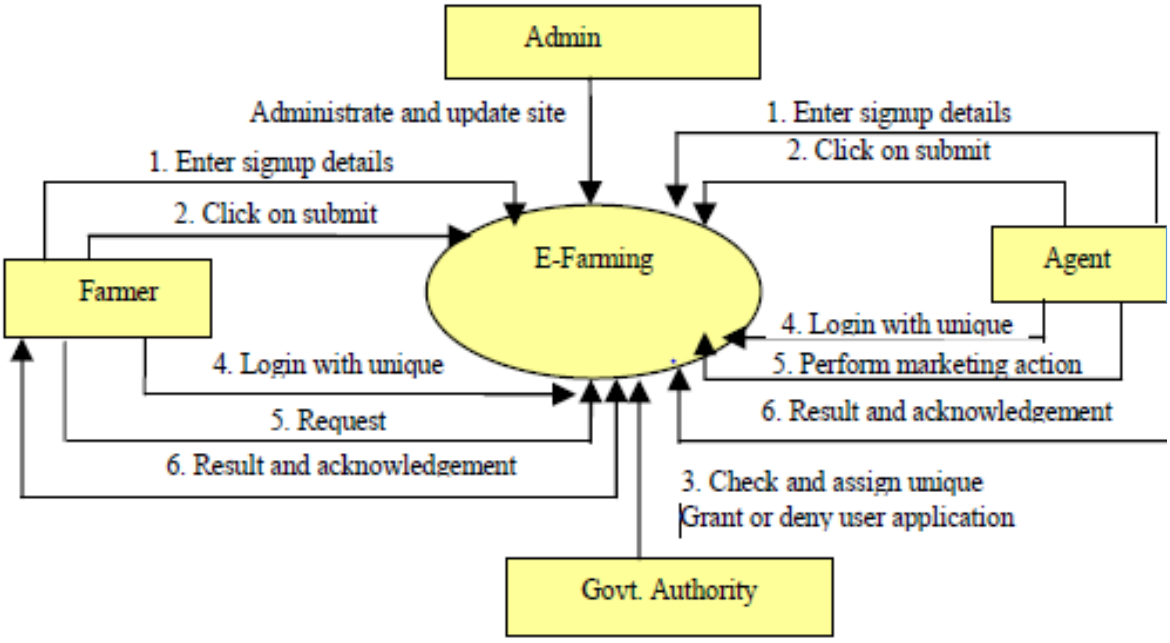
- Operating System (Windows 32/64 bit)
- RAM (4 GB)

Software Specification

- Eclipse
- MySQL Workbench
- Tomcat server
- Browsers

4. Architecture:

Dataflow Diagram of E farming



4.1 Modules

Admin:

Admin should be able to see all record from any users. The records shown for selling should be available in a format of Quantity name, Quantity available, price. The database should be robust enough to handle all the online transactions which will be happening parallel.

Users:

People can register on the site for some basic e-learning like if some user wants to learn how to operate a computer, they can go and learn about it from the site. The site should also be available in local languages as per States.

Computer professionals:

Automatic transfer of emails to company's computer professional if some user enrolled for basic course There should be a facility of scheduling classes for farmers who enrolled for basic courses.

Seller:

The seller can fill the registration form and get his credentials. All the details of the product will be uploaded by the seller. Seller will fix the rates of the products. The seller can view the result page. Seller will add the details of the item. The seller can update the details of the item.

Buyer:

Buyer will get the username and password by filling the registration form. Buyer will view all the details of the product. Buyer will see the list of products that he want to buy. Buyer can view the sales rate details.

Crop details:

In this module the admin will add the crop details according to particular seasons so the farmer can view that and can grow the crops according to that.

Query Page

This module will provide the facility to the farmers to post the query. If another farmer or admin know the answer they will post that answer in that page. The farmer had an option to view the answer also.

5. Experimental Analysis:

5.1 Coding

Index.jsp

```
<%@ page import ="java.sql.*" %>

<!DOCTYPE html>
<html>
   <head>
      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
      <title>ZapCom</title>
      <link rel="stylesheet" href="welcome.css">
   </head>

   <body >
   <body background= "http://assets.e-agriculture.fao.org.s3-eu-west-
1.amazonaws.com/public/styles/full_node/public/news/The_Guardian_.png?itok=4nQFaH-
0">
```

```
   <div class="header">
        <h2>Login</h2>
</div>

  <form method="post" action="login.jsp">
        <div class="input-group">
              <label>Username</label>
              <input type="text" name="username" value="" required>
        </div>
          <div class="input-group">
              <label>Password</label>
              <input type="password" name="password" pattern="(?=.*\d)(?=.*[a-
z])(?=.*[A-Z]).{8,}" title="Must contain at least one number and one uppercase and
lowercase letter, and at least 8 or more characters" required>
        </div>
        <div class="input-group">
              <button type="submit" class="btn" name="login_btn">Login</button>
        </div>
        <p>
          Not Registered yet <a href="reg.jsp">Register Here</a>
        </p>
      </form>

   </body>
</html>
```

Login.jsp

```
<%@ page import ="java.sql.*" %>
<%
   String userid = request.getParameter("username");
   String pwd = request.getParameter("password");
   Class.forName("com.mysql.jdbc.Driver");
   Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/efarm",
        "root", "mamathasai123A$");
   Statement st = con.createStatement();
   ResultSet rs;
   rs = st.executeQuery("select * from farmers where uname='" + userid + "' and pass='" +
pwd + "'");
   if (rs.next()) {
      session.setAttribute("userid", userid);
      response.sendRedirect("success.jsp");
   } else {
      out.println("Invalid username or password <a href='index.jsp'>try again</a>");
   }
%>
<% String uid = "admin";
  String pswd="";
```

```
if(uid.equals(userid) && pswd.equals(pwd))
                {
        response.sendRedirect("mysql1.jsp");
                }
        %>
```

Register.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
   pageEncoding="ISO-8859-1"%>
   <%@ page import ="java.sql.*" %>
    <%@ page import ="com.mysql.*" %>
<%  String user = request.getParameter("username");
   String pwd = request.getParameter("password");
   String fname = request.getParameter("fname");
   String lname = request.getParameter("lname");
   String email = request.getParameter("email");
   Class.forName("com.mysql.jdbc.Driver").newInstance();
   Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/efarm",
        "root", "mamathasai123A$");
   Statement st = con.createStatement();
 /* String strQuery = "SELECT COUNT(*) FROM farmers where uname='"+user+"'";
   ResultSet rs = st.executeQuery(strQuery);
   rs.next();
   String Countrow = rs.getString(1);
   out.println(Countrow);*/
   int i = st.executeUpdate("insert into farmers(first_name, last_name, email, uname, pass)
values ('" + fname + "','" + lname + "','" + email + "','" + user + "','" + pwd + "')");
   if(i>0){
   out.print("Registration Successfull!"+"<a href='index.jsp'>Go to Login</a>");
   }
   else{
        out.println("Registration failed !"+ "<a href='reg.jsp'>Register Again</a>" );
   }
   }
   catch (Exception e){
        e.printStackTrace();

  %>
```

Crop Details.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Crop Details</title>
<link rel="stylesheet" href="welcome.css">
```

```
</head>
<body class="crop">
<body background ="https://static-news.moneycontrol.com/static-mcnews/2017/03/farm-farmer-fertiliser-farming-crops-770x433.jpg">
<div class="header">
        <h2>crop details</h2>
</div>

 <form method="post"  action = "cropsaledetails2.jsp">
        <div class="input-group">
        <label>Name Of the Crop</label>
                <input type="text" name="cropname" value="" required>
        </div>
       <div class="input-group">
        <label>No of kgs available</label>
                <input type="text" name="kgs" value=""  required>
        </div>
        <div class="input-group">
        <label>Cost of each kg(in rupees)</label>
                <input type="text" name="kg" value="" required>

        </div>
        <div class="input-group">
        <label>Farmer Name</label>
                <input type="text" name="name" value="" required>
        </div>
        <div class="input-group">
        <label>Mobile No</label>
                <input type="text" name="mobile" value=""   required>
        </div>
        <div class="input-group">
        <label>address</label>
                <input type="text" name="address" value="" required>
        </div>
        <div class="input-group">
        <label>email</label>
                <input type="text" name="email" value="" required>
        </div>
        <div class="input-group">
                <button type="submit" class="btn" name="Add_bn">Add</button><br><br>
                <button  class ="button"  onclick="window.location.href='logout.jsp'"
>Logout</button><button  class ="button"  onclick="window.location.href='mysql1.jsp'"
>Back</button>
        </div>
        </form>
</body>
        </html>
```

Query.jsp

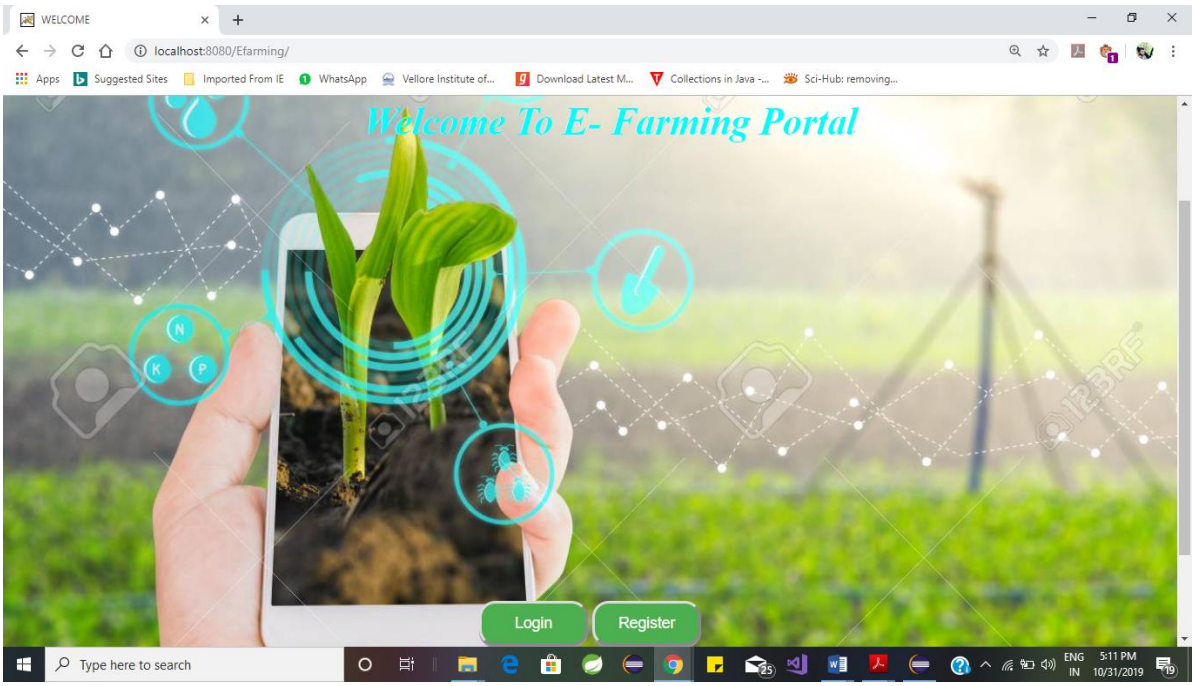
```
<%@ page import ="java.sql.*" %>
    <%@ page import ="com.mysql.*" %>
<%

   String type = request.getParameter("type");
   String content = request.getParameter("content");


   Class.forName("com.mysql.jdbc.Driver").newInstance();
   Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/efarm",
         "root", "mamathasai123A$");
   Statement st = con.createStatement();
   //ResultSet rs;
   int i = st.executeUpdate("insert into query(type,content)values('"+type+"','"+content+"')");
    if (i > 0) {

      out.print("added values Successfully!");
      out.print("To see the entered details <a href='query.jsp'>click here</a>");
     }
      else{
      out.print("please add values in above columns");
      }
                  %>
```

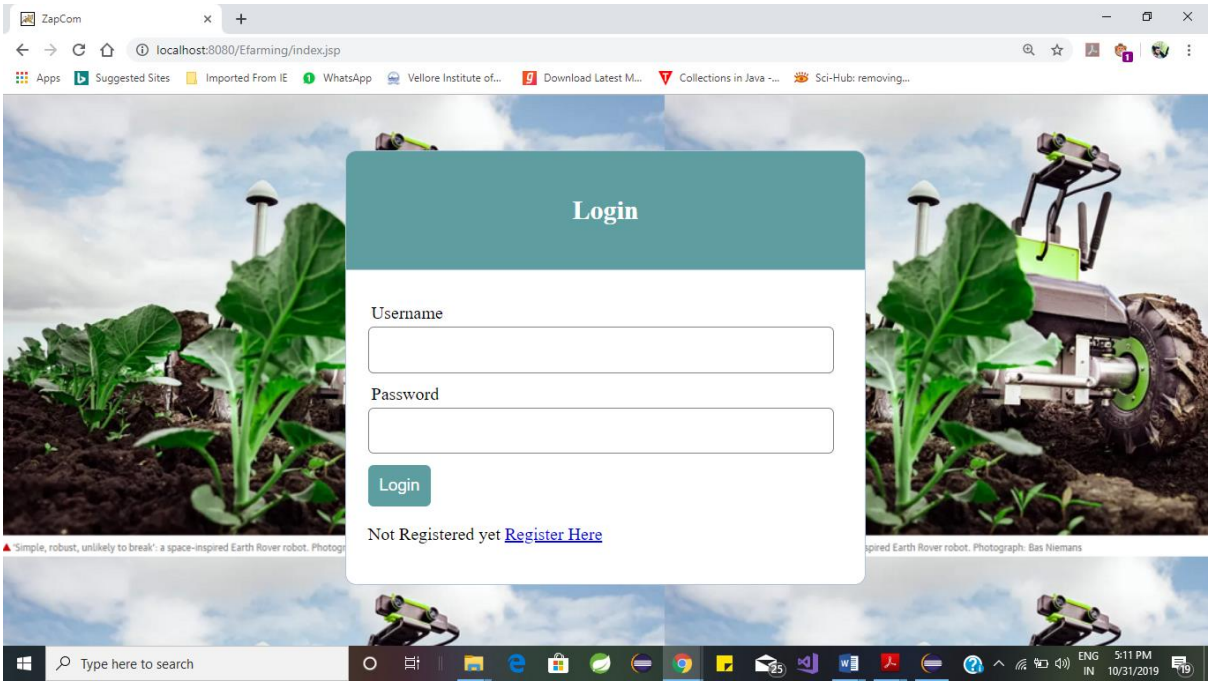
Cropdetails.jsp

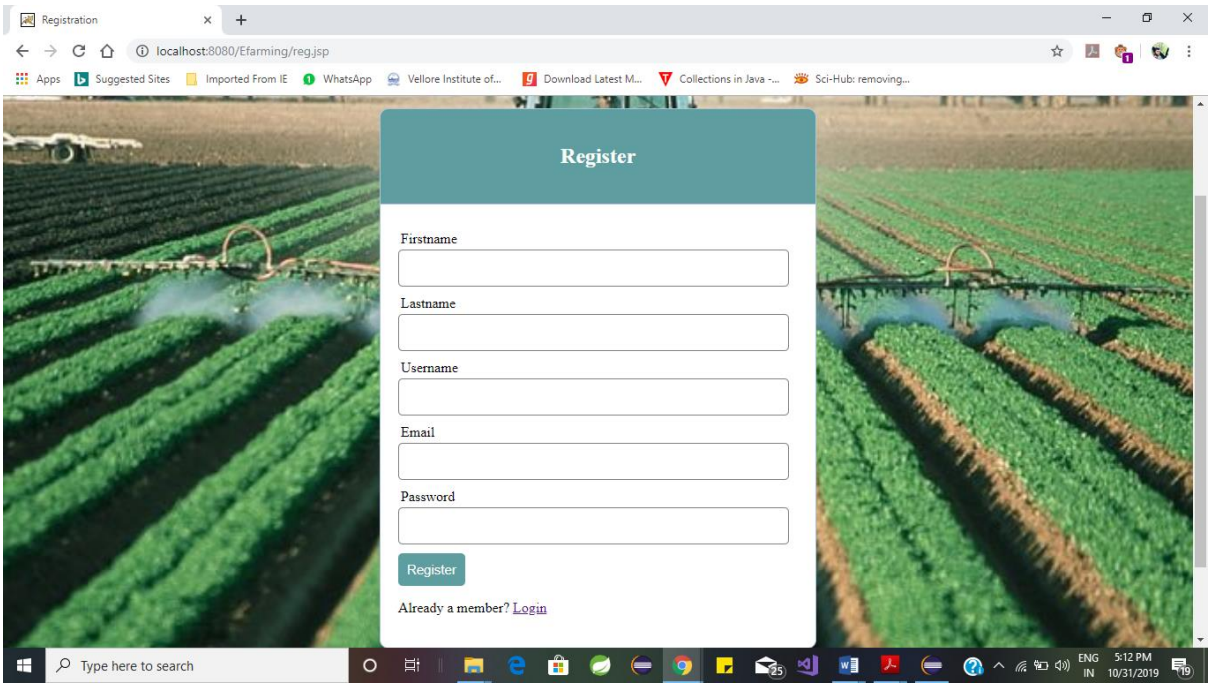
```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
   pageEncoding="ISO-8859-1"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>crop details</title>
<link rel="stylesheet" href="sai.css">
</head>
<body class="spotlight">
<center>
<table border="1" width="100%" cellpadding="2">
<thead align="center">
<tr>
<th><h1>Crop Details</h1></th>
</tr>
</thead>
<tbody>
<tr>
<th><h3> for the spring season cultivating ground nuts will be good choice</h3></th>
```

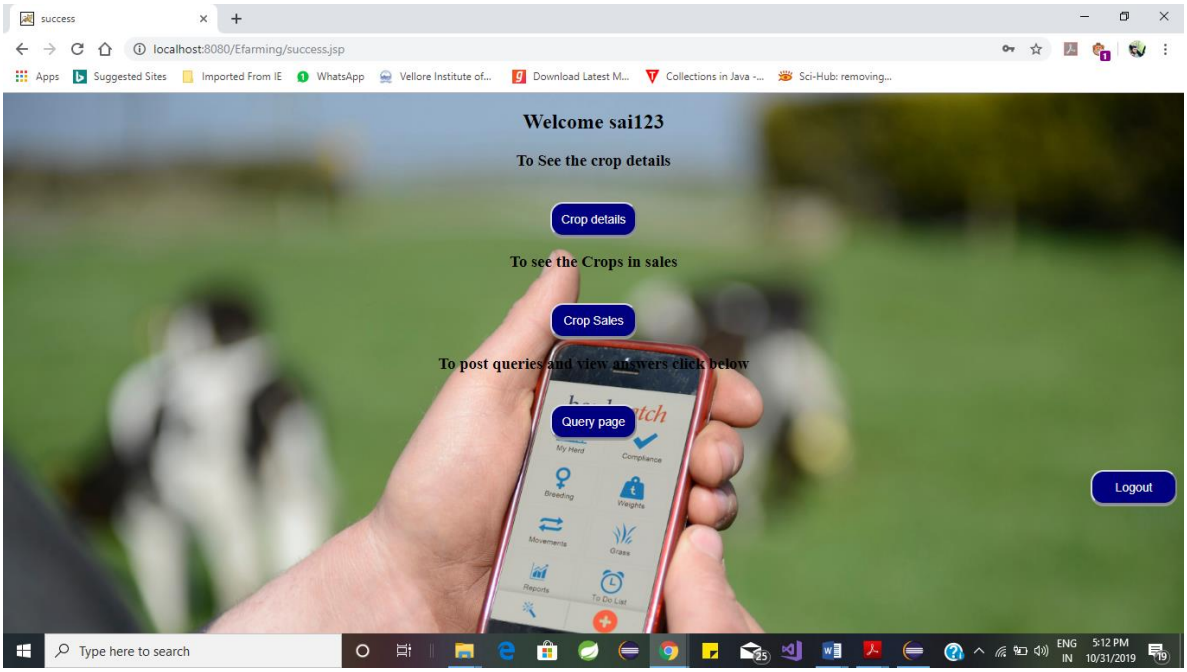
```
</tr>
</table>
</center>

<div align="right">
<button class ="button"  onclick="window.location.href='success.jsp'" >Back</button>
<button class ="button"  onclick="window.location.href='logout.jsp'" >Logout</button>
</div>
</body>
</html>
```

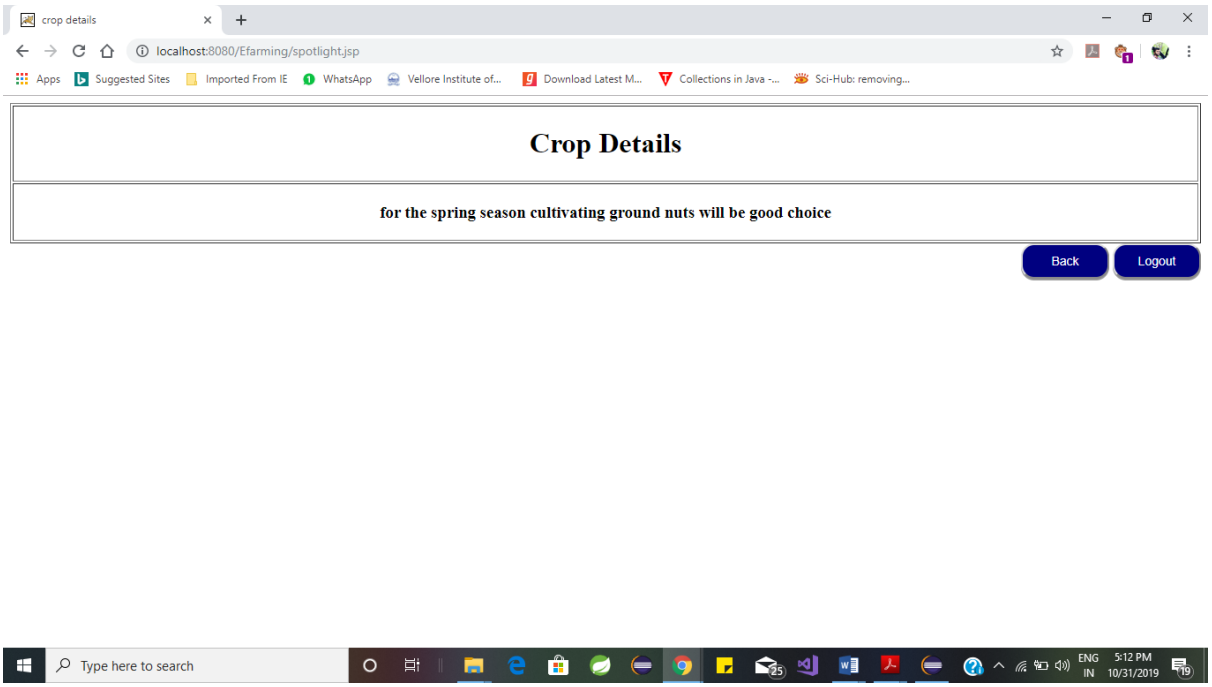
5.2 Results:

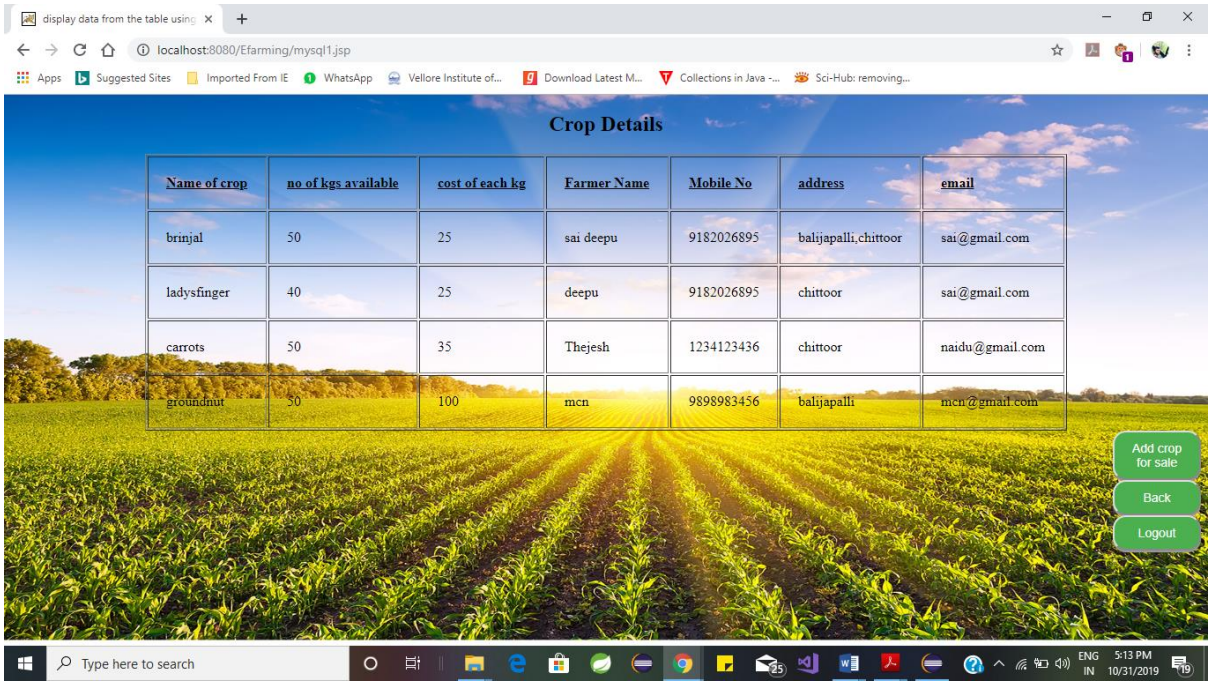


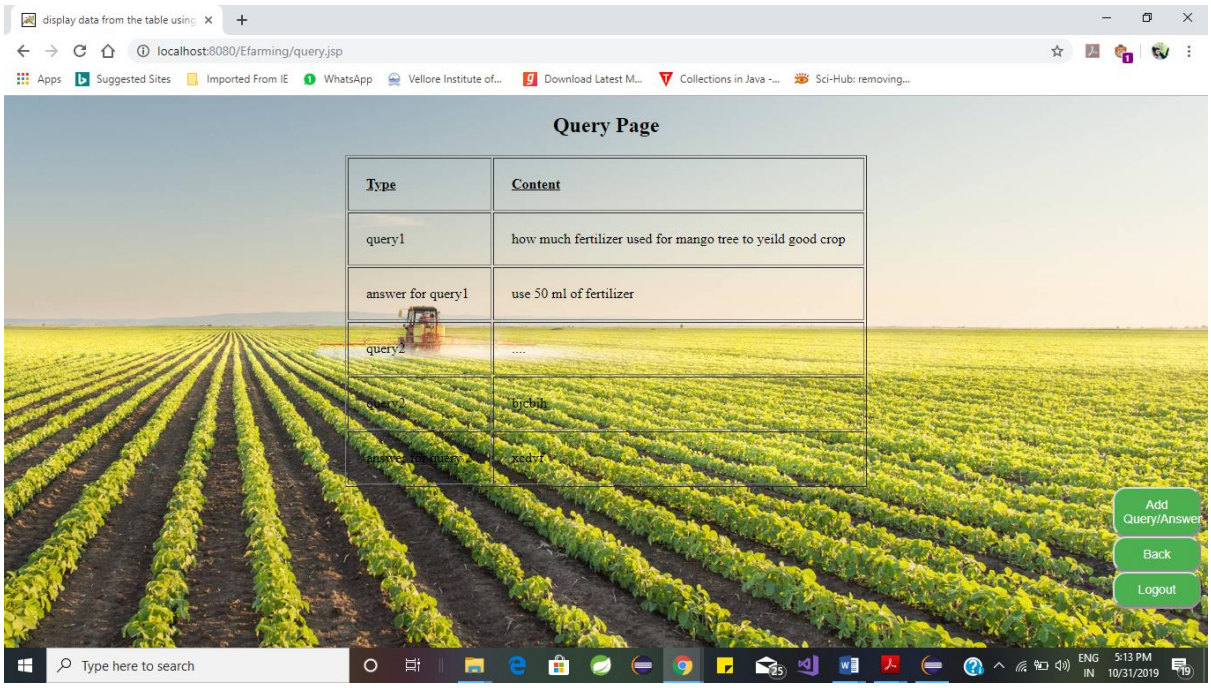

ZapCom
localhost:8080/Efarming/index.jsp
Apps
Suggested Sites
Imported From IE
WhatsApp
Vellore Institute of...
Download Latest M...
Collections in Java -...
Sci-Hub: removing...
Login
Username
Password
Login
Not Registered yet Register Here
Type here to search
ENG
IN
5:11 PM
10/31/2019

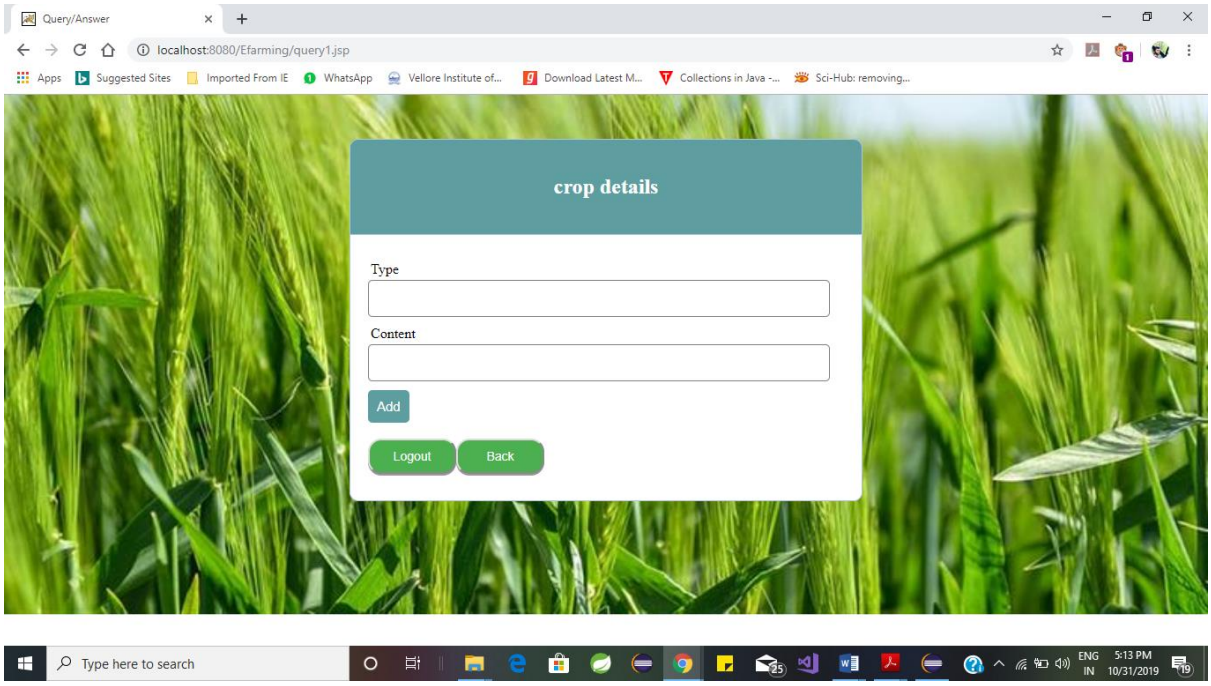

Registration
localhost:8080/Efarming/reg.jsp
Apps
Suggested Sites
Imported From IE
WhatsApp
Vellore Institute of...
Download Latest M...
Collections in Java -...
Sci-Hub: removing...
Register
Firstname
Lastname
Username
Email
Password
Register
Already a member? Login
Type here to search
ENG
IN
5:12 PM
10/31/2019


success
localhost:8080/Efarming/success.jsp
Apps
Suggested Sites
Imported From IE
WhatsApp
Vellore Institute of...
Download Latest M...
Collections in Java -...
Sci-Hub: removing...
Welcome sai123
To See the crop details
Crop details
To see the Crops in sales
Crop Sales
To post queries and view answers click below
Query page
Logout
Type here to search
ENG
IN
5:12 PM
10/31/2019


crop details
localhost:8080/Efarming/spotlight.jsp
Apps
Suggested Sites
Imported From IE
WhatsApp
Vellore Institute of...
Download Latest M...
Collections in Java -...
Sci-Hub: removing...
Crop Details
for the spring season cultivating ground nuts will be good choice
Back
Logout
Type here to search
ENG
IN
5:12 PM
10/31/2019


display data from the table using
localhost:8080/Efarming/mysql1.jsp
Apps
Suggested Sites
Imported From IE
WhatsApp
Vellore Institute of...
Download Latest M...
Collections in Java -...
Sci-Hub: removing...
Crop Details
Name of crop
no of kgs available
cost of each kg
Farmer Name
Mobile No
address
email
brinjal
50
25
sai deepu
9182026895
balijapalli,chittoor
sai@gmail.com
ladysfinger
40
25
deepu
9182026895
chittoor
sai@gmail.com
carrots
50
35
Thejesh
1234123436
chittoor
naidu@gmail.com
groundnut
50
100
mcn
9898983456
balijapalli
mcn@gmail.com
Add crop for sale
Back
Logout
Type here to search
ENG
IN
5:13 PM
10/31/2019


display data from the table using
localhost:8080/Efarming/query.jsp
Apps
Suggested Sites
Imported From IE
WhatsApp
Vellore Institute of...
Download Latest M...
Collections in Java -...
Sci-Hub: removing...
Query Page
Type
Content
query1
how much fertilizer used for mango tree to yeild good crop
answer for query1
use 50 ml of fertilizer
query2
....
query3
hrcbih
answer for query3
xcdvf
Add Query/Answer
Back
Logout
Type here to search
ENG
IN
5:13 PM
10/31/2019



6. Results and Discussion:

E-Farming is an application which gives an idea to the farmers how to use e-farming to sell their products. Farmers will get all the new ideas to improve their productivity and they can buy and sell their products online. This system will give information about the crops that can be grown for this particular type of soil. Using this E-Farming System, the farmers can see the cost of the products available in market based on this he can grow that crop. The E-Farming system will provide information of the fertilisers to be used based on the symptoms of disease and to yield high quantity with low cost. E-Farming System will decrease the middle man between the farmer and consumer. E farming System provides online chatting application where farmer can post their problem and that can view all the persons who used that system and they can reply for queries and it provides a direct chatting application for farmer and buyer.

7. Conclusion

This project will be helpful for farmers to know more about market information; will act as unique interface of schemes and compensation. Through this they will be always in touch of new technique and trends of farming. But some extends, new user may feel some kind of stress about its use. Overall this system is faster, secure and comfortable.