# Chapter 1: Introduction

This is the final report document for the developed Kisaan Help Desk portal. The Kisaan Help Desk portal is made for our farmer community. This portal made by using HTML, CSS, JAVASCRIPT and PHP language. Coding was handled through the Object-Oriented approach.

## 1.0 Project Summary

In Kisaan Help Desk there are two logins are there one is Admin and the second is user login. In this portal there are main 3 modules are there (1) QA Solution,(2) Notes,(3) Dealers. In the QA solution farmer can ask any query regarding the work and another user answers that question if they know. Furthermore, it can contain multiple answers so a user can get a distinct answer from many users. Second is notes that contain income and expense notes of users securely.and third and last is dealers that contains a list of dealers of the distinct crop in different city's.

Admin:- In admin side admin have the right to delete any question and also rights to add or delete dealers.

User:- As mentioned above users have the right to use all functionality except admin rights.

## 1.1  Purpose

Goals: To enhance farmer's efficiency and effectivity

Objectives: To make a more frequent communication path between two farmers so they can get more benefits.

## 1.2 Scope

Since this will be an open to all audience the area of application could be the general population as it can be used basically by everyone but it can be most helpful to farmers.

Targeted users will be people who are doing farming. Furthermore, in other portal's you can see they make farmer to an expert connection that may be difficult for farmers to understand the expert language but in this we are making farmer to farmer connection so it also reflects on the scope of this portal.

## 1.3 Technology and Literature Review

As mentioned in the introduction part this portal made by using CSS, HTML, PHP, and JAVASCRIPT language. Furthermore,MYSQL is also used for connection between files and database.

In which PHP is a technology that allows softwer devlopers to create dynamically web pages and it is open source language. MYSQL is a database which is widely used for accessing querying,updating and managing data in database.

HTML is used to create and save web documents and CSS is used to give attractive design to user view and JAVASCRIPT is used for validation of phone number,email, etc.

# Chapter 2: Project Management

**Project management** is the discipline of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria at the specified time.

## 2.0 Project Planning and Scheduling

**Project planning & scheduling** is part of project management, which relates to the use of schedules such as Gantt charts to plan and subsequently report progress within the project environment.

Initially, the project scope is defined and the appropriate methods for completing the project are determined. Following this step, the durations for the various tasks necessary to complete the work are listed and grouped into a work breakdown structure. Project planning is often used to organize different areas of a project, including project plans, work loads and the management of teams and individuals. The logical dependencies between tasks are defined using an activity network diagram that enables identification of the critical path. Project planning is inherently uncertain as it must be done before the project is actually started. Therefore the duration of the tasks is often estimated through a weighted average of optimistic, normal, and pessimistic cases.

## 2.0.1 Project Development Approach

### Agile:

Agile model believes that every project needs to be handled differently and the existing methods need to be tailored to best suit the project requirements. In Agile, the tasks are divided to time boxes (small time frames) to deliver specific features for a release.

**Advantages of Agile model:**

- Customer satisfaction by rapid, continuous delivery of useful web patches.
- People and interactions are emphasized rather than process and tools. Customers, developers and testers constantly interact with each other.
- Working web updates will be delivered frequently (weeks rather than months).
- Close, daily cooperation between investors publishers and developers.
- Continuous attention to technical excellence and good design.

○ Regular adaptation to changing circumstances,Graphics API,Engines.
○ Late changes in requirements will be accomodated

**Justification**

The Project being developed is a entirely dependent on web which is tend in which the requirements possess tendency to change at any point in development plan. Since Agile is a software process model which is adaptable to a change at a very later phase in software development it is a best fit.

Also when and If DLC or patches are to be released both can be assigned an iteration and can be supplied to already released product as expansion/improvement.

## 2.0.2 Project Plan

| Activity | Start date | End date |
|---|---|---|
| 1.Requirement Gathering | 27-7-2019 | 10-08-2019 |
| 2.Quick Design | 12-08-2019 | 24-08-2019 |
| 3.Build Prototype(Implementation) | 25-08-2019 | 03-09-2019 |
| 4.Customer Evaluation | 04-09-2019 | 14-09-2019 |
| 5.Refining Prototype | 15-09-2019 | 27-09-2019 |
| 6.Report Making | 27-07-2019 | 05-10-2019 |

**Milestones**

A milestone is a specific point in time within a project life cycle used to measure the progress of a project toward its ultimate goal. In project management, milestones are used as signal posts for: a project's start or end date, a need for external review or input, a need for budget checks, submission of a major deliverable, and much more. Milestones have a fixed date but no duration.

**Deliverable**

Deliverables is tangible or intangible goods or services produced as a result of project that is intended to be delivered to customer.

A deliverable could be

Report

SRS

Software Product

Service  Upgrade

Test report

Final documentation.


**Roles and Responsibilities:**

**1.Requirement Analyst :**

A Requirement Analyst capable of viewing the current world view and design an infotainment product which is entertaining and Useful along with capable of helping the user psychologically
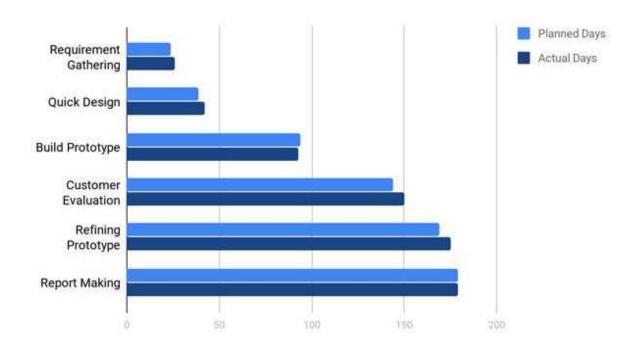

**2.Designer:**

A Designer for designing friendlly environments using bootstrap for users.


**3.Web Designer**

A Web Designer who can give vision to the direction of web placing every right brick at right place turning the the web into whole new world.

## 2.0.3 Schedule Representation

# Chapter 3: System Requirements Study

## 3.1 User Characteristic

### 3.1.1 User

User of the portal is farmers and agriculture lovers they like to do somthing on this field.Users can use all the function that perfored by the portal.Users have access to use all function like create notes of income and expense,user can write query and also user can get slution of that from multiple users and also user can get dealers info from that module.

### 3.1.2 Admin

Admin have all rights that user have but one more is admin can add,edit and delete dealers information when user can't add,edit and delete information of dealers. Because dealers are government sertified and that admin can only add otherwise duplication or wrong information may be happen in that module.

## 3.2 Hardware and Software Requirements

**Software Requirements**
- PHP my admin
- Sublime
- SSMS (Sql Server Menagement Studio)

## ` 3.3 Constraints

- This portal is designed to run on any platform with efficient internet speed.
- High Level Languages used to made this portal is,
  - PHP (Backend)
  - HTML
  - CSS (Front End)

### 3.3.1 Assumption and Dependencies

In this portal main dependencie is user.Because if any one ask question then he/she need other users to give answer of them question.

### 3.3.2  Safety Requirements

In this there are two logins are there first user and second admin, we all know access to the various module will be protected by a user and admin login screen that requires a email id and password.This gives different views and accessible functions to users and admin.

### 3.3.3 Dealers Database Require

As mention above only admin can add dealers info so for that admin need ceartified dealers data from any goverment wesite or from any goverment committee.

# Chapter 4: System Analysis

Software design sits at the technical kernel of the software engineering process and is applied regardless of the development paradigm and area of application. Design is the first step in the development phase for any engineered product or system. The designer's goal is to produce a model or representation of an entity that will later be built. Beginning, once system requirement have been specified and analyzed, system design is the first of the three technical activities -design, code and test that is required to build and verify software.

The importance can be stated with a single word "Quality". Design is the place where quality is fostered in software development. Design provides us with representations of software that can assess for quality. Design is the only way that we can accurately translate a customer's view into a finished software product or system. Software design serves as a foundation for all the software engineering steps that follow. Without a strong design we risk building an unstable system – one that will be difficult to test, one whose quality cannot be assessed until the last stage.

During design, progressive refinement of data structure, program structure, and procedural details are developed reviewed and documented. System design can be viewed from either technical or project management perspective. From the technical point of view, design is comprised of four activities – architectural design, data structure design, interface design and procedural design.

## 4.1  Study of Current System

**System: Exsisting Features Of  Farmer Portals**

In current avilable system, connection between user and dealers are there also communication path between user and exper is also there but some of the features are out dated and after changing we can make them more freuent.Exsisting features are maintion belowed.

**Features**
- Communication Path Between User and Expert
- Connection Between User and Dealers
- Showing new Goverment policy

## 4.2 Problem and Weaknesses of Current System

Current system making user to exper connection that might be possible farmer can't understand them logical lenguage so to reduce farmers complexity about question we need user to user connecion.

Frequent output of the web is also problem in current system many times happens that server taking more load so it also reflect on user.

## 4.3 Requirements of New System

- As per the weaknessese of exsisting system to solve that we need one frequent and user friendly web portal so for that we make KisaanHelpDesk.

- In KHD we make user to user connection so farmer can easylly understand and solve them proble that they are facing.

- Using cloud interference we reduce the server load so user can get frequentlly and faster output from portal without any technical disturbance.

### Features

◆ Manage Querys (Add,Update,Delete)
◆ Manage Notes
- Income Notes (Add,Update,Delete)
- Expense Notes (Add,Update,Delete)
◆ Manage Dealers (Add,Update,Delete)
◆ E-mail notification at login time
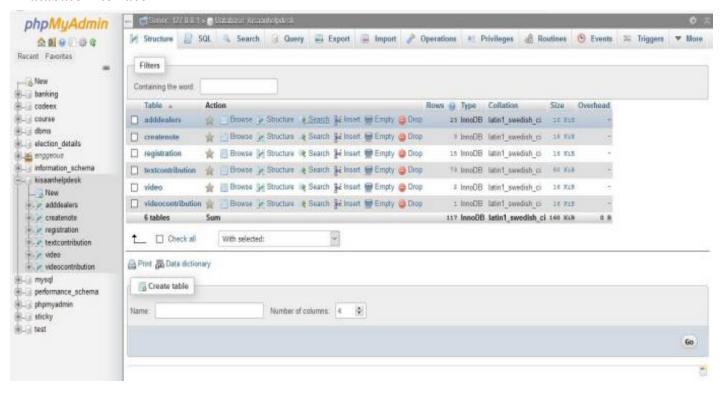◆ Search Bar in all functionalitys
◆ Issue Excel report at dealers module
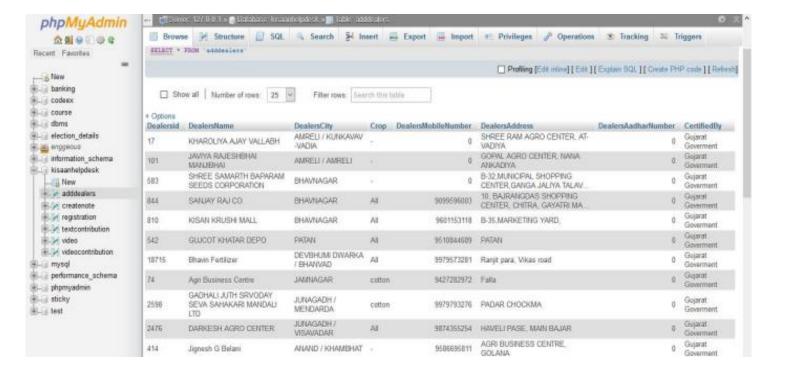
# Chapter 5: Data Modeling

## 5.1 Database Design

In a database context, a form is a window or screen that contains numerous fields, or spaces to enter data. Each field holds a field label so that any user who views the form gets an idea of its contents. A form is more user friendly than generating queries to create tables and insert data into fields.

As mention above only admin can add dealers info so for that admin need ceartified dealers data from any goverment wesite or from any goverment committee.So the database-

**Database Interface**

# 5.2 Input/Output and Interface Design

## 5.1 Samples of Interface

User interface needs keyboard and mouse if they are using the laptop or the desktop by using they can add delete or use this portal to add query and to get answer from other user's or expert's, Admin have all rights that user have but one more is admin can add,edit and delete dealers information when user can't add,edit and delete information of dealers. Because dealers are government sertified and that admin can only add otherwise duplication or wrong information may be happen in that module. User of the portal is farmers and agriculture lovers they like to do somthing on this field.Users can use all the function that perfored by the portal.Users have access to use all function like create notes of income and expense,user can write query and also user can get slution of that from multiple users and also user can get dealers info from that module.so this are the main functionality of the KHD portal this portal can make the User, admin and Expert connection easily and it is also make the data manage easily. So this are main use interface of the portal .

## 5.2 Access Control and Security

Security get to control is a significant part of any framework. Security get to control is the demonstration of guaranteeing that a validated client gets to just what they are approved to and no more. The awful news is that security is once in a while at the highest point of individuals' rundowns, despite the fact that notice terms, for example, information privacy, affect ability, and possession and they immediately become intrigued. Fortunately there is a wide scope of strategies that you can apply to help secure access to your framework.

In this there are two logins are there first user and second admin, we all know access to the various module will be protected by a user and admin login screen that requires a email id and password.This gives different views and accessible functions to users and admin.

# Chapter 6: Implementation and planning details

## 6.1 User Base

The environment will be a Farmer's and as well as other User's can access the system from anywhere. each User's can able to ask them query from anywhere, and also admin can able to manage all data easily from anywhere. This all functionality can be use from anywhere, they can access it at anytime and many number of user's can access this portal only the need is network connectivity or High speed internet in phone/system.

## 6.2 User Interface

There are many factors that must be considered when designing the user interface of a software because the user must be able to interact with the system in away that the system will understand whatever the input given by the user. Therefore, the quality of the interface and software in general must pass the us ability testing standard. Some usability factors, such as fit for use, ease of learning, task efficiency, ease to remember, subjective satisfaction and under standability but all be put into consideration when designing the user interface. The application will have a user friendly and menu based interface,.

Following screens will be provided
- A Login Screen for entering user name, password , administrator will be provided.

- Access to different screen will be based upon the role of the user.

- A option for select language as per use's requirements.

- A form for place your effective review to improve portal with user requirement.

- Varification system of user's mobile number using sending OTP sms is also there.

- A form for search to know status of any question or query .

## 6.3 Coding Standards

We have a couple of basic coding norms and shows. Scarcely any product is kept up for as long as its can remember by the first creator. Code shows improve the comprehensibility of the product, permitting architects to see new code all the more rapidly and thoroughly.If we choose to open source code to mod network engineers, we need it to be effectively comprehended.

A considerable lot of these shows are really required for cross-compiler similarity.

## 6.4 Class Organization

Classes ought to be sorted out considering the per user instead of the essayist. Since most per users will utilize the open interface of the class, that ought to be proclaimed first, trailed by the class private usage.

## 6.5 Naming Conventions

The primary letter of each word in a name (for example type or variable) is promoted, and there is normally no underscore between words. For instance, however not last mouse coordinates or delta_coordinates. Type names are prefixed with an extra capitalized letter to recognize them from variable names. For instance, F Skin is a sort name, and Skin is a case of a F Skin.

## 6.6 Sample Coding

(1) **Connection File :**

```php
<?php

        $conn =  new mysqli ("localhost","root","","kisaanhelpdesk") or die ("Database Not Found");
?>
```

(2) **Sign in page File with sql query :**

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta name="description" content="">
    <meta name="author" content="Dashboard">
    <meta name="keyword" content="Dashboard, Bootstrap, Admin, Template, Theme, Responsive, Fluid, Retina">

    <title>DASHGUM - Bootstrap Admin Template</title>

    <!-- Bootstrap core CSS -->
    <link href="assets/css/bootstrap.css" rel="stylesheet">
    <!--external css-->
    <link href="assets/font-awesome/css/font-awesome.css" rel="stylesheet" />

    <!-- Custom styles for this template -->
    <link href="assets/css/style.css" rel="stylesheet">
    <link href="assets/css/style-responsive.css" rel="stylesheet">
```

```php
<!-- HTML5 shim and Respond.js IE8 support of HTML5 elements and media queries -->
<!--[if lt IE 9]>
  <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
  <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
<![endif]-->
</head>

<body>
    <?php
            if(isset($_POST['sign'])){
    $PhoneNumber = $_POST['PhoneNumber'];
    $Pasword = $_POST['Pasword'];
    $login = false;


    if(!empty($PhoneNumber) || !empty($Pasword)){
    $conn = new mysqli("localhost","root","","kisaanhelpdesk");
    $sql = "SELECT * FROM registration";
    $result = $conn->query($sql);
    if ($result->num_rows > 0) {
      while($row = $result->fetch_assoc()) {
            $quest=$row["PhoneNumber"];
       if($PhoneNumber == $row["PhoneNumber"] && $Pasword == $row["Pasword"]){
       $login = true;
       break;
        }
        }
       if ($login == true) {
            $quest=$row['PhoneNumber'] ;
            echo "".$quest;
       echo "Login successfully";
       if($PhoneNumber == "8780582642" && $Pasword == $row["Pasword"]){
       echo "<script> location.href='index.html'; </script>";
    }
    else
    {
                    echo "<script> location.href='http://localhost/farmie/index.php?$quest'; </script>";
    }
      }else{
       echo "Login Denied.";
       echo "<script> location.href='sign.php'; </script>";
       }
    } else {
       echo "0 results";
    }
    } else {
```

```php
        echo "All Fields are required.";
        die();
        }
}
        ?>
        <div id="login-page">
                <div class="container" id="div1">

                        <form class="form-login" method="POST">
                         <h2 class="form-login-heading">Kisaan Help Desk</h2>
                         <div class="login-wrap">
                                        <input type="text" class="form-control" placeholder="Phone Number"
name="PhoneNumber" autofocus required>
                                <br>
                                        <input type="password" class="form-control" placeholder="Password"
name="Pasword" required>
                                <label class="checkbox">
                                   <span class="pull-right">
                                     <a data-toggle="modal" href="login.html#myModal"> Forgot Password?</a>

                                   </span>
                                </label>
                                                                <button    class="btn    btn-theme    btn-block    "
href="http://localhost/farmie/index.php?q=<?php echo $quest ?>" type="submit" name="sign" ><i
class="fa fa-lock"></i> SIGN IN</button>
                                <hr>

                                <div class="registration">
                                   Don't have an account yet?<br/>
                                   <a class="" href="regist.php">
                                      Create an account
                                   </a>
                                </div>

                         </div>

                        </form>

                </div>
        </div>

   <!-- js placed at the end of the document so the pages load faster -->
   <script src="assets/js/jquery.js"></script>
   <script src="assets/js/bootstrap.min.js"></script>

   <!--BACKSTRETCH-->
   <!-- You can use an image of whatever size. This script will stretch to fit in any screen size.-->
```

```html
    <script type="text/javascript" src="assets/js/jquery.backstretch.min.js"></script>
    <script>
        $.backstretch("assets/img/login-bg.jpg", {speed: 500});
    </script>


  </body>
</html>
```

# Chapter 7: Testing

## 7.1 Testing Plan

Test system helps in guaranteeing programming quality. The motivation behind test method is a quality affirmation, confirmation and approval. Fundamentally testing strategy is an examination led to give data about nature of item or administrations. It guarantees that specialists can get to their id whenever and patient can check or update his treatment detail whenever. Testing is the way toward executing a program with the aim of discovering blunders. It is utilized to speak to a definitive survey of particular, plan, coding. Diverse test conditions ought to be completely checked and the bugs distinguished ought to be fixed. Testing in emergency clinic the board framework are fallowed as –

**Unit testing**- Unit testing plays a crucial role in early phase of software testing life cycle which helps in detection bugs; and once properly planned and executed, it reduces cost of quality. However, if unit tests are not written well, or they are executed incorrectly, bugs go through into the production phase. This oversight can cost a company thousands, if not hundreds of thousands of dollars depending on the scale of the project.Unit testing needs a deep expertise of looking into code with various perspectives such as Code coverage, Loop coverage, Branch coverage, Condition coverage, and Fuzzing code to predict its expected failure, predefined negative tests while developing code . This involves not just insights into code, but a much required methodological approach towards testing the code for its afferent and efferent coupling.

**Testing Goal -** Dots squares unit testing service goal is to catch as many bugs early in the development as possible. This is achieved by writing accurate and quality unit tests, while at the same time providing detailed documentation for the development process. This ensures that bugs and inconsistencies we detect early in the development stage, can be re-factored by the development team. We work intimately with your team to thoroughly ensure all project goals are met on time and within budget.

## Benefits of Unit Testing -
 **Finding problems early -**Unit tests find problems early in the development cycle.

 **Facilitate change -**Allows the programmer to re-factor code during the testing process and at a later date, while making sure the module still works correctly.

 **Simplify integration -**By testing the parts of a program first and then testing the sum of its parts, integration testing becomes much easier.

 **Documentation -**Developers looking to learn the result of a unit test can look at the unit test documentation to gain a better understanding.

 **Design -**Each unit test can be seen as a design element specifying classes, methods,and observable behaviors during the project life-cycle.

# Black box testing

Black Box testing is a software testing techniques in which **functionality of the software under test (SUT) is tested without looking at the internal code structure**, implementation details and knowledge of internal paths of the software. This type of testing is based entirely on the software requirements and specifications.

## Black box testing - Steps
Here are the generic steps followed to carry out any type of Black Box Testing.

- Initially requirements and specifications of the system are examined.
- Tester chooses valid inputs (positive test scenario) to check whether SUT processes them correctly . Also some invalid inputs (negative test scenario) are chosen to verify that the SUT is able to detect them.
- Tester determines expected outputs for all those inputs.
- Software tester constructs test cases with the selected inputs.
- The test cases are executed.
- Software tester compares the actual outputs with the expected outputs.

## Types of Black Box Testing

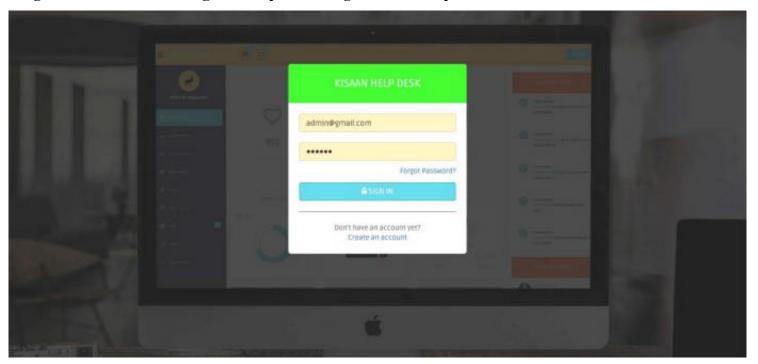There are many types of Black Box Testing but following are the prominent ones -

**Functional testing** - This black box testing type is related to functional requirements of a system; it is done by software testers.

**Non-functional testing** - This type of black box testing is not related to testing of a specific functionality , but non-functional requirements such as performance, scalability, usability.
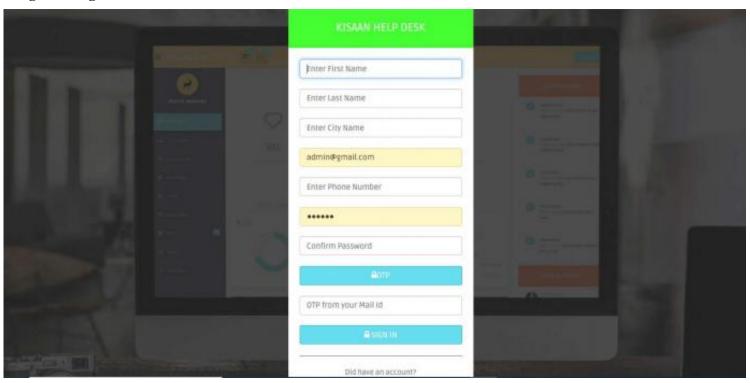
**Regression testing** - Regression testing is done after code fixes , upgrades or any other system maintenance to check the new code has not affected the existing code.
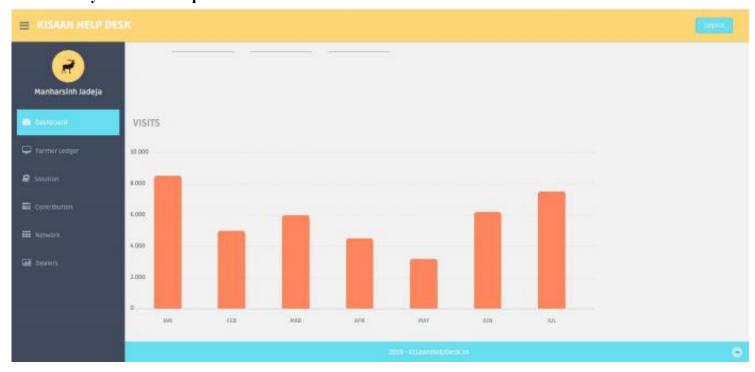
# Chapter 8 : Screen Shots and User Manual

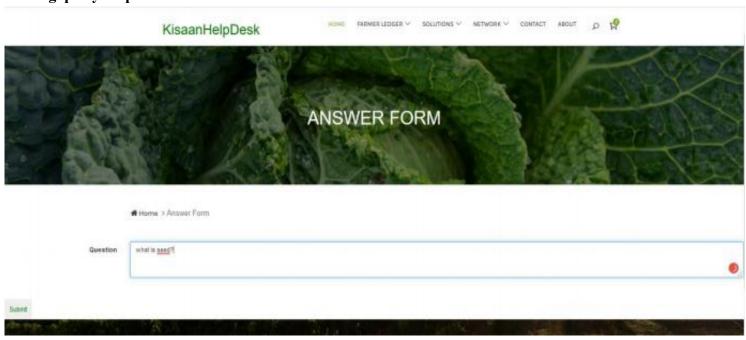**Login interface is used to login to the portal using email id and password for two different users**



**Register Page**

**Userfriendly Dashbord of portal**
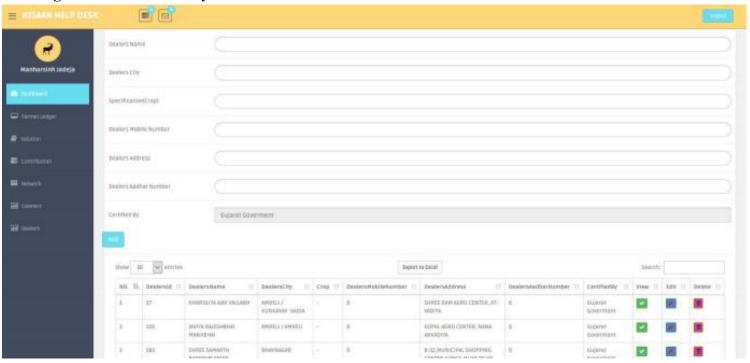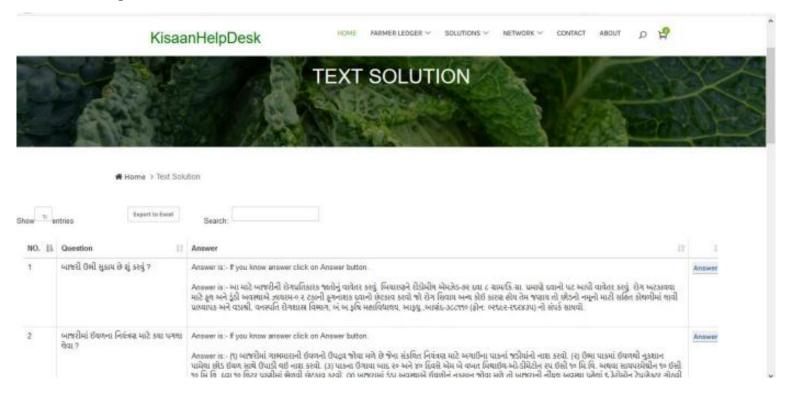


**Adding query on portal**

## Adding Notes on portal



## Adding Dealers On Portal by Admin

**Answer of Questions**

# Chapter 9 : Limitation and Future Enhancement

## Limitations of Current System:

As of now many limitation is there in Kisaan Help Desk Portal but we are trying to solve with efficient way and also as much fast as posible.

- As of now Kisaan Help Desk is not able to handle more user's at a time without any intrupt.

- Doesn't support different language for different user's.Currentlly it supports only two language English and Gujarati.

- Less attraction of user's due to less attractive UI (User Interface) of Portal.

- Due to server load it's taking more time to proceed.

- In portal Aadhar Card verification facility is not add.

- Need proper review system to take truth review and to do modification as per user requirement.

## Enhancements:

- High speed working portal without any server load or other intrupt

- Shold be available with all languages

- Atrractive UI (User Interface) for USER'S

- Aadhar Card verification need to be proper and right

- More frequent connection between User , Admin , Expert , etc.

# Chapter 10 : Conclusion and Discussion

With above approach the planning and prototype generation of web portal was done efficiently without any major hiccups one can face in the phases of making a portal but we solve that at that time. As I mention above now need some modification in portal to make a effective and usefull portal.

The portal Kisaan Help Desk is made to provide frequent connection between farmer's and experts. And it will provide all facility with security so using we can take care of user's important information. Like in sign in time we are providing sms OTP facility so using that always we varify that user is valid or not.

The system is secure as a user can modify the information only after the proper authentication. Chances of error are also eliminated to large extent. Computerization and automation of the whole system helps in easy and fast access to the required information.. The system is highly user friendly as appropriate message are provided to guide the user logged in.

## References:

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2. **https://mkisan.gov.in/**

3. **https://mkisan.gov.in/registration.aspx**

4. **https://ikhedut.gujarat.gov.in/**

5. **https://www.india.gov.in/topics/agriculture/crops**

6. **https://pmfby.gov.in/**

7. **https://www.gujinfo.com/28442/ikhedut-gujarat.html**

8. **http://www.yojanagyan.in/ikhedut-portal-yojana-gujarat/**

9. **http://agrimediavideoapp.com/blog/?p=1066**

10. **https://onlineyojana.in/gujarat-ikhedut-portal-2019-20-yojana-online-apply-ikhedut-gujarat-gov-in/**