**Project Report On**

# "Agro-Management System"

**Submitted for partial fulfilment of course IF5967-Project and Seminar of the Diploma Programme in Information Technology**


**Submitted By**

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(An Autonomous Institute of Government of Maharashtra)


**2019-2020**

# CERTIFICATE

This is to certify that the Dissertation entitled

**"Agro-Management System"**

is a bonafide work and it is submitted to the Government Polytechnic, Amravati.

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in the partial fulfilment of the course IF-5967 Project and Seminar for the requirement of the **Diploma** in **Information Technology**, during the academic year **2019-2020** under my guidance.

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**2019-2020**

**Dissertation Approval Sheet**

**Dissertation Entitled**

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is presented and approved for the Diploma

in

**Information Technology**

of

**Government Polytechnic, Amravati**

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| **Date: - / /** | **Date: - / /** |

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# ABSTRACT

India is fourth largest agriculture sector in the world. Agriculture sector provides employment to over two third population of the country. The Agro-Management System Project provides its users and researches to get online information about, the crop, statistical details and new tendencies. This project is aimed at solving some of the major problems related to farmers. The web interface has been designed completely user friendly, to facilitate the access even to an illiterate farmer.

The main objective of developing "Agro-Management System Project" application is to help farmers by providing all kinds agriculture related information in the website. "Agro-Management System Project" is farmer management website application which helps farmers to give best-practice farming processes. It helps farmers to improve their productivity and profitability. It enables farmers to purchase tools and seeds directly from seller.

Agro-Management System is to help farmers by providing all kinds agriculture related information in the website. Agro-Management System is farmer management website application which helps farmers to give best-practice farming processes The name Agro-Management System indicates Intelligent Agriculture. Agriculture Management System is a model farmer management website application. This site helps the farmers to sell their agricultural produce online and suggests best -in-practice farming processes. Hence, providing a wider market and helping them to not restrict themselves to the local market. This enables wholesalers and retailers to expand their business.

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## INTRODUCTION

The “Agro-Management System” has been developed to override the problems prevailing by the farmers in agriculture process. This Software is supported to eliminate and in some cases to reduce the hardship faced by farmers to manage the agriculture-related methods (e.g. Land details, Crops maintenance, land or product buying and selling, Weather Forecasting Information etc.).

This application reduces the time and efforts required for managing the agriculture methods. Farmers with lack of knowledge about technical gadgets (like cell phones and computers, etc.) are provided with offline canters (Customer Service centre) in their area/city. Where, our employees will help them to operate the application efficiently. This application will help them to keep count on the overall expenditure of the agricultural goods, it will also eliminate the risk of maintaining the records on the offline basis (in registers or documental form) rather it will store the records in the database.

Now-a-days, there are a lot of upcoming government policies which are still unknown to many of the farmers. So, our software will help them to keep track of those policies. As there is direct communication between the buyer (Customer) and seller (Farmer) the risk of loss of money is reduced.

The "Krushi Agro-Management System"(website of Agro-Management System) provides a most systematic and simplest way of accessing the information to the users.

## NEED OF THE PROJECT

Agriculture is the backbone of India & from few years we are facing some problems in this sector, in order to eliminate this issues we have designed this software. Earlier farmers would deal with the broker for selling their crops due, to which they are unable to receive the desired profit to eliminate this our software provide direct communication with buyer. Now-a-days our government have declared many policies and acts for a sake of formers but many of them are unaware of that act and policies. So, our software will keep them update with this act and policies and it will impose this acts and policies on all the transaction performed in our software.

In some regions farmers are unknown with the knowledge of crops development so, to will provide up-to-date weather forecasting reports and information related to development of the crop sometime the problem may arise as the farmer are not known about the current price rates or demand of the crop which can cause a great loss. So, in order to eliminate this we provide them the statistical graph about the crops in demand and current price rates of the crops. In earlier days, farmers use to write the expenditure, profit and loss of the alternative

and other expenses in a documental format which is difficult to keep a count on this data. So, have designed on account to maintain this information in the database.

## How is it Beneficial?

The main objective of the project on Agro Management System is to perform following functions:

- It establishes to make farmers aware of the upcoming Government Policies.
- To maintain the expenditure of farmers (amount spend and received on) while using our software.
- To provide them the statistical graph of the crops in demand and current price rates of the crops.
- To provide the most satisfying deals for purchasing, selling and renting the land.
- To provide them up-to-date weather forecasting reports in order to ease the development of crops.
- To provide the best quality of crops, fertilizers, agricultural equipment, etc.
- To provide the most satisfying deals for purchasing and selling of the agricultural goods.
- To provide the information about the development of the crops.

## LITERATURE REVIEW

Most of the countries have their livelihood depend on the agriculture. Agriculture contributes to their nation economy. Agriculture has been one of the primary occupations of man since early civilizations and even today manual interventions in farming are inevitable. There are many plants that are very sensitive to water levels and they required specific level of water supply for proper growth, if this not provided they may die or result in improper growth. It's hardly possible that every farmer must possess the perfect knowledge about growing specifications of plants in case of water supply. But from few decades the yield that agricultural crops produce goes on decreasing. There are many reasons for that such as environmental factors, fertility of soil, water requirement to the crops, improper way of cropping, irrigation facilities, etc., so there's need of use of technology in the field of agriculture. Different organizations and researchers find the root causes for that and tried to develop the efficient system that will help to increase the production. The lack of information regarding the same has caused such disadvantages. The agriculture system provides the necessary information to the farmers, and the rest of the users.

Related Work:

1. Peter Namisiko in 2013 have proposed as: A study which is conducted at majority of farmers in Kenya who are not able to sell their produce at market price due to lack of sufficient information available. Also the agricultural productivity is being lessen due to the lack of information and resistance developed by the agricultural universities. For such farmers to produce and sell their products at market based competitive prices, information communication technologies (ICT) tools have be availed to them. This is because the development of agriculture is dependent on how fast and relevant information is provided to the end users. The study concentrated in Trans Nzoia County since it is the heart of Kenya. A lot of research has been conducted in this area, but no research has been to ascertain the awareness, adoption, legislative and regulatory framework, therefore it is must to determine the current research trends in the use and adoption of e-agriculture of e-Agriculture in TransNzoia Country.

2. Marcel Fafchamps in 2012 have proposed as: This paper estimates the bene fits of the Indian farmers if the market and weather information is delivered to their mobile phones. And this has been conducted with a randomized experiment in 100 villages of Maharashtra. This service has been sent in by a commercial service called Reuters Market Light (RML). The treated farmer's associate RML information with a number of decisions they have made in the agriculture, and we find that the treatment affected spatial arbitrage and crop grading. But the magnitude of these effects is small. We find no statistically significant average effect of treatment on the price received by farmers, crop value-added, crop losses resulting from rainstorms, or the likelihood of changing crop varieties and cultivation practices

## SYSTEM ANALYSIS

**Hardware Requirements:**

- Communication Devise (Laptop, Pc, Mobile Phones, etc.)
- Storage devices (Pen drive, CD-ROM, etc.)
- Server

**Software Requirements:**

- Visual Studio 2015
- Internet Browsing Software (Google Chrome, Internet Explorer, etc.)
- MySQL Workbench 8.0 CE

# SYSTEM DESIGN

## Data Flow Diagram:

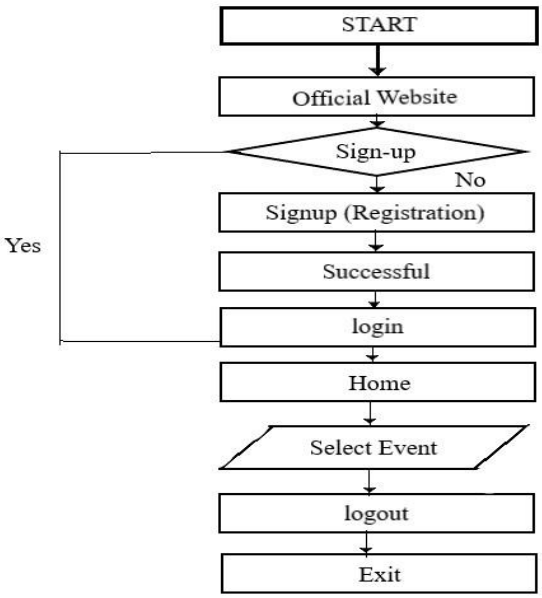



Figure no. 1: Data flow diagram.

**System Architecture:**

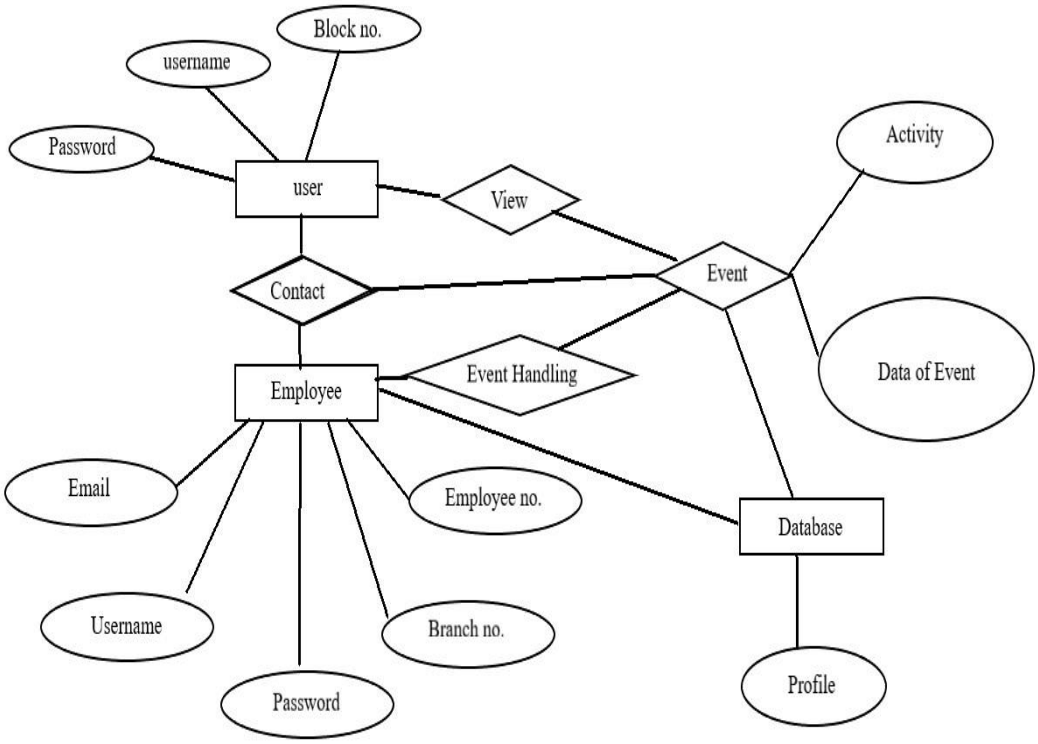



Figure no. 2: System architecture.

## SYSTEM DEVELOPMENT

### DATABASES:

### Market Price:

| Commodity | Variety | MSP for 2019-20 (Rs per quintal) | MSP for 2020-2021 (Rs per quintal) | Increase over previous year (Rs per quintal) |
|---|---|---|---|---|
| **KHARIF CROPS** | | | | |
| Paddy | Common | 1815 | 1868 | 53 |
| | Grade 'A' | 1835 | 1888 | 53 |
| Jowar | Hybrid | 2550 | 2620 | 70 |
| | Maldandi | 2570 | 2640 | 70 |
| Bajra | | 2000 | 2150 | 150 |
| Maize | | 1760 | 1850 | 90 |
| Ragi | | 3150 | 3295 | 145 |
| Arhar (Tur) | | 5800 | 6000 | 200 |

| | | | | |
|---|---|---|---|---|
| Moong | | 7050 | 7196 | 146 |
| Urad | | 5700 | 6000 | 300 |
| Cotton | Medium Staple* | 5255 | 5515 | 260 |
| | Long Staple ** | 5550 | 5825 | 275 |
| Groundnut in shell | | 5090 | 5275 | 185 |
| Sunflower seed | | 5650 | 5885 | 235 |
| Soyabeen | Yellow | 3710 | 3880 | 170 |
| Sesamum | - | 6485 | 6855 | 370 |
| Nigerseed | - | 5490 | 6695 | 755 |
| **RABI CROPS (2019-20 season to be marketed in 2020-21)** | | | | |
| Wheat | | 1840 | 1925 | 85 |
| Barley | | 1440 | 1525 | 85 |
| Gram | | 4620 | 4875 | 255 |
| Masur (Lentil) | | 4475 | 4800 | 325 |
| Rapeseed & Mustard | | 4200 | 4425 | 225 |
| Safflower | | 4945 | 5215 | 270 |
| Toria | | 3560 | 3900 | 340 |
| **OTHER CROPS** | | | | |
| Copra (2020 crop season) | Milling | 9521 | 9960 | 439 |
| | Ball | 9920 | 10300 | 380 |
| De-husked coconut | | 2571 | 2700 | 129 |
| Raw Jute (for 2019-20 season) | | | 3950 | - |
| Sugarcane $ | | | 275 | - |
| * Staple length (mm) of 24.5 -25.5 and Micronaire value of 4.3 -5.1 | | | | |
| ** Staple length (mm) of 29.5 -30.5 and Micronaire value of 3.5 -4.3 | | | | |
| $ Fair and remunerative price | | | | |

**Soil Testing:**

| Id | State | Page Link | District | Img Location |
|---|---|---|---|---|
| 1 | Maharashtra | Soiltesting1.aspx | Ahmednagar | st1.png |
| 2 | Maharashtra | Soiltesting1.aspx | Akola | st2.png |
| 3 | Maharashtra | Soiltesting1.aspx | Amravati | st3.png |
| 4 | Maharashtra | Soiltesting1.aspx | Aurangabad | st4.png |

**Weather Forecasting:**

| Id | State | District | Img Location |
|---|---|---|---|
| 1 | Goa | Goa north | Goa north.png |
| 2 | Goa | Goa south | Goa south.png |
| 3 | Maharashtra | Amravati | Amravati.png |
| 4 | Maharashtra | Akola | Akola.png |

**Crop Details:**

| Id | Crop Name | Language | Text File |
|---|---|---|---|
| 1 | Arhar | english | arhar.txt |
| 2 | bajra | english | bajra.txt |
| 3 | barley | english | barley.txt |
| 4 | cotton | english | cotton.txt |

**User Details:**

| Id | username | password | name | D.O.B | gender | mob. no. | email Id | Address | State | Security Question | Security Answer |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Karan More | more1234 | Karan More | 1992-08-11 | Male | 8674582355 | karanmore1234@gmail.com | at post koradi ,Buldhana ,Maharashtra. | Maharashtra | what is your desire? | becoming a successful farmer |
| 2 | Sunita Pawar | mypawd0702 | Sunita Pawar | 1989-04-30 | Female | 8736832345 | sunitapawar@gmail.com | lehgao railway, daryapur, amravati, maharashtra. | Maharashtra | what is your desire? | to give better future to my childrens |
| 3 | Rohit Gaytonde | rohi4868 | Rohit Gaytonde | 1991-11-24 | Male | 9675835345 | rohitgaytonde@gmail.com | at post aasegaon bajar, Akot, Akola, Maharashtra. | Maharashtra | what is your desire? | living a Luxorious life |
| 4 | Radha Jadhav | radha007 | Radha Jadhav | 1995-09-15 | Female | 9643427543 | radhajadhav@gmail.com | at post mengvadi, Morshi, Amravati, Maharashtra. | Maharashtra | what is your desire? | my parents should feel proud of me |
| 5 | Sameer Rathod | samm101 | Sameer Rathod | 1975-10-19 | Male | 7589546752 | sameerrathod01@gmail.com | at post bhoom,Osmanabad, Maharashtra. 413534 | Maharashtra | what is your desire? | to fulfil all wishes of my family |
| ▶* | NULL | NULL | NULL | NULL | NULL | | NULL | NULL | NULL | NULL | NULL |

**Government Schemes:**

| Id | State | Govt Scheme | Details | URL address |
|---|---|---|---|---|
| 1 | maharashtra | E-NAM | National Agriculture Market (eNAM) is a pan-India electronic trading portal which netwo... | https://enam.gov.in/web/ |
| 2 | maharashtra | National Mission For Sustainable Agriculture (NMSA) | National Mission for Sustainable Agriculture (NMSA) has been formulated for enhancing... | https://nmsa.dac.gov.in/ |
| 3 | maharashtra | Pradhan Mantri Krishi Sinchai Yojana (PMKSY) | Har Khet ko Pani "Prime Minister Krishi Sinchayee Yojana" . Government of India is com... | https://pmksy.gov.in/ |
| 4 | maharashtra | Pradhan Mantri Fasal Bima Yojana (PMFBY) | Pradhan Mantri Fasal Bima Yojana (PMFBY) is the government sponsored crop insuranc... | https://pmfby.gov.in/ |

## MODULES:

- Developer
- Administrator
- Employee
- User

**Developer:** A module developer is someone who is going to add to the simulation capabilities of Energy Plus.

**Use cases:**

- Creating a software
- Creates a new Component model
- Create a new program module

**Administrator:** This module handles system and database such as uploading information, policies, acts, deleting the unwanted accounts, managing the work of employees.

**Use cases:**

- Update information
- Delete accounts
- Manage employees

- Maintain database

**Employee:** This module looks after the queries of the user, help them to create account and record the data in the database.

**Use cases:**

- Query solving
- Create account
- Upload Records

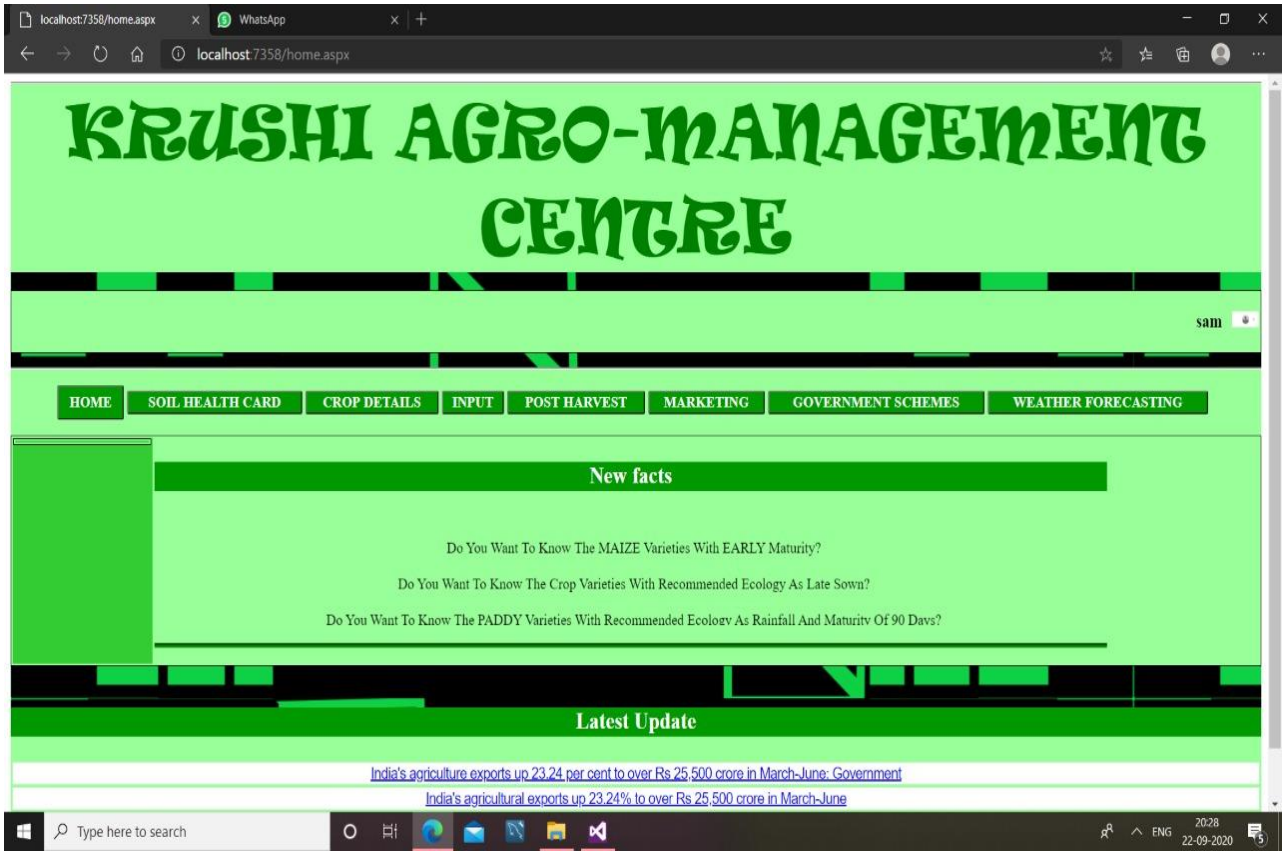
**User:** This module can create an account, login and log out from the account.

**Use Cases:**

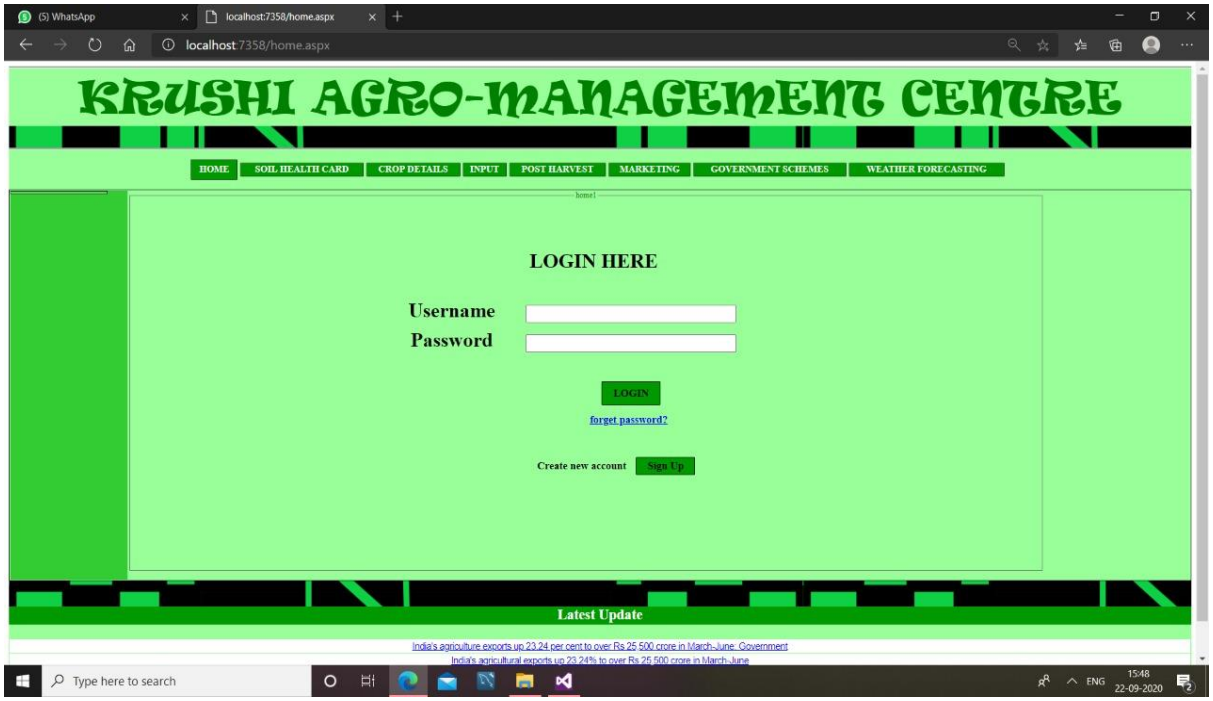
- Create account
- Log in
- Log out

## EXPERIMENTAL RESULTS AND DISCUSSION:

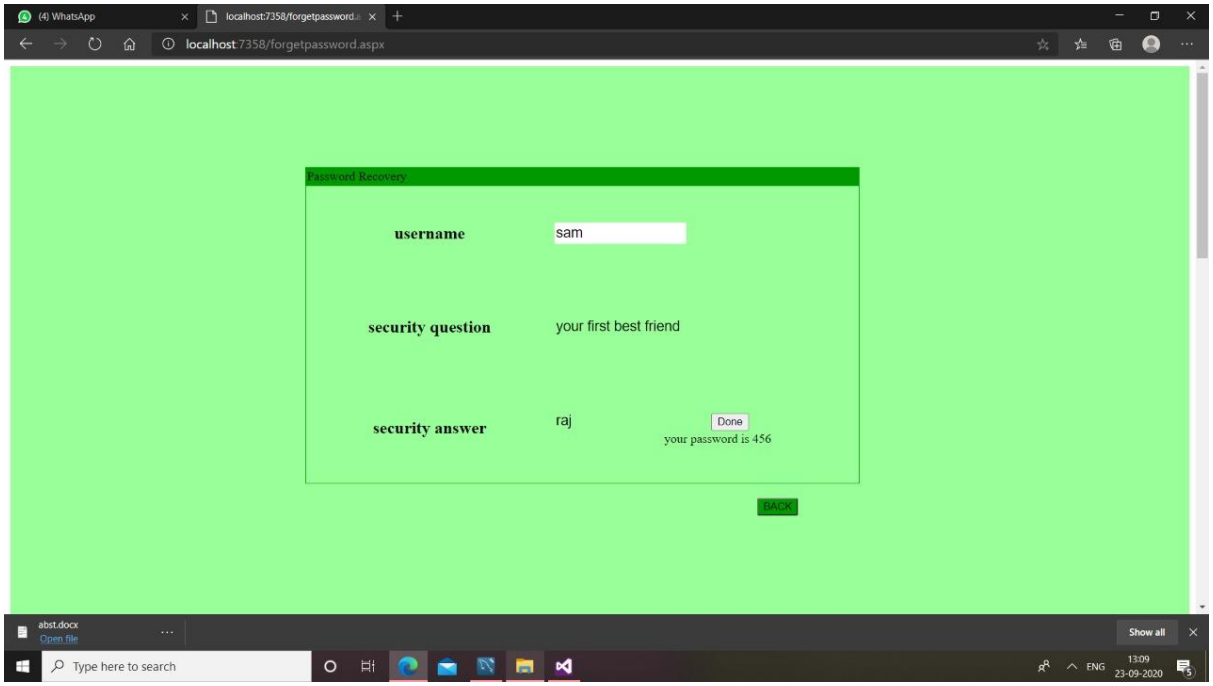
**Home Page:** As you open the home page it will display new facts at the centre of the page which will help the farm to stay updated with the agriculture related new information's.



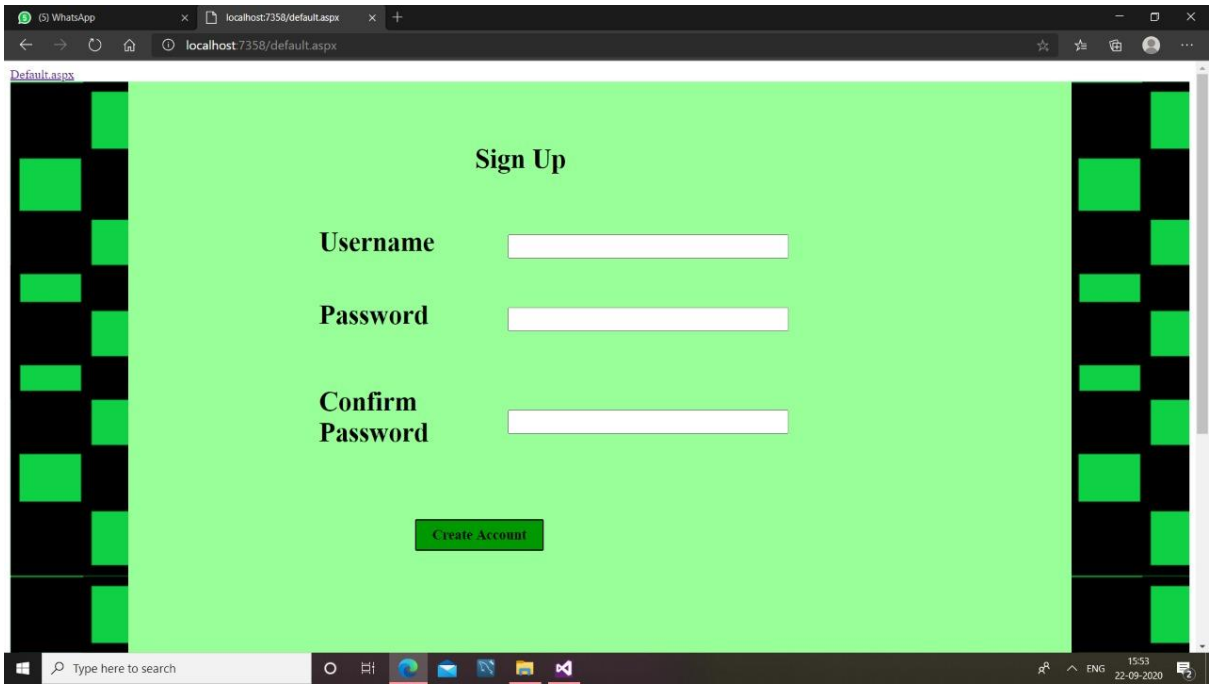

**Log in:** Here, you can either to the already existing account by entering valid username and password or you can create a new account by sign up. Click on sign up to create a new account.




**Recover password:** If the user forgets the password then click on -> forget password then the below displayed page will appear and from here you can recover your password.

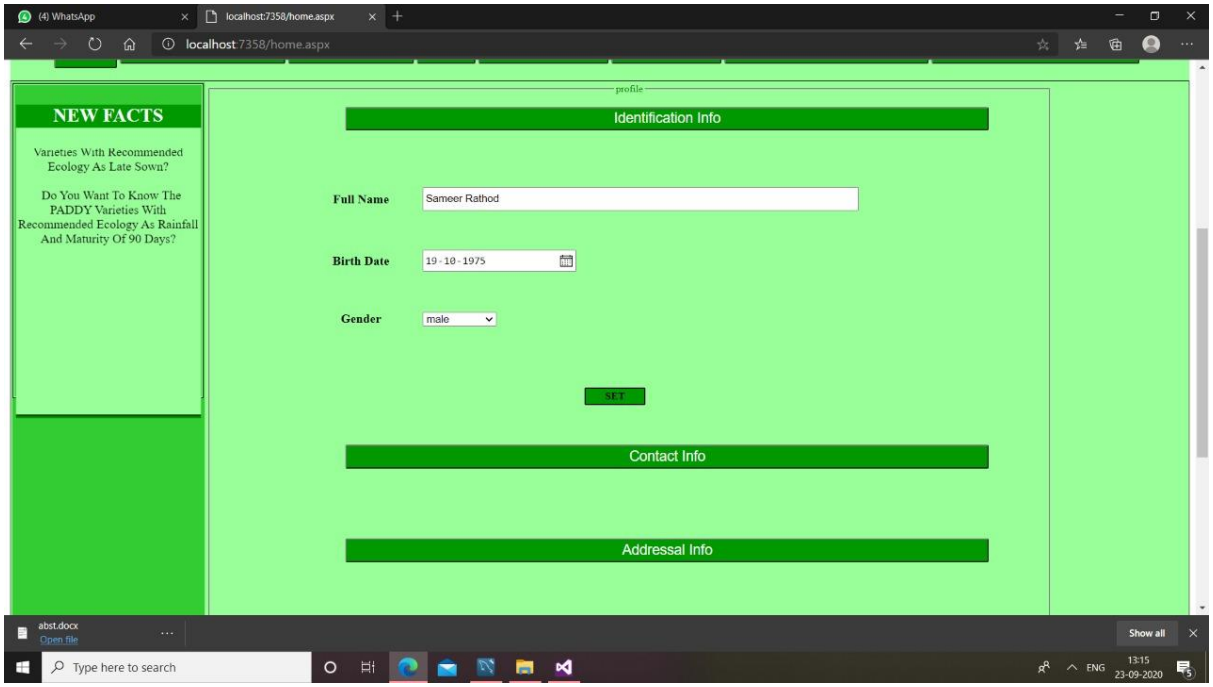


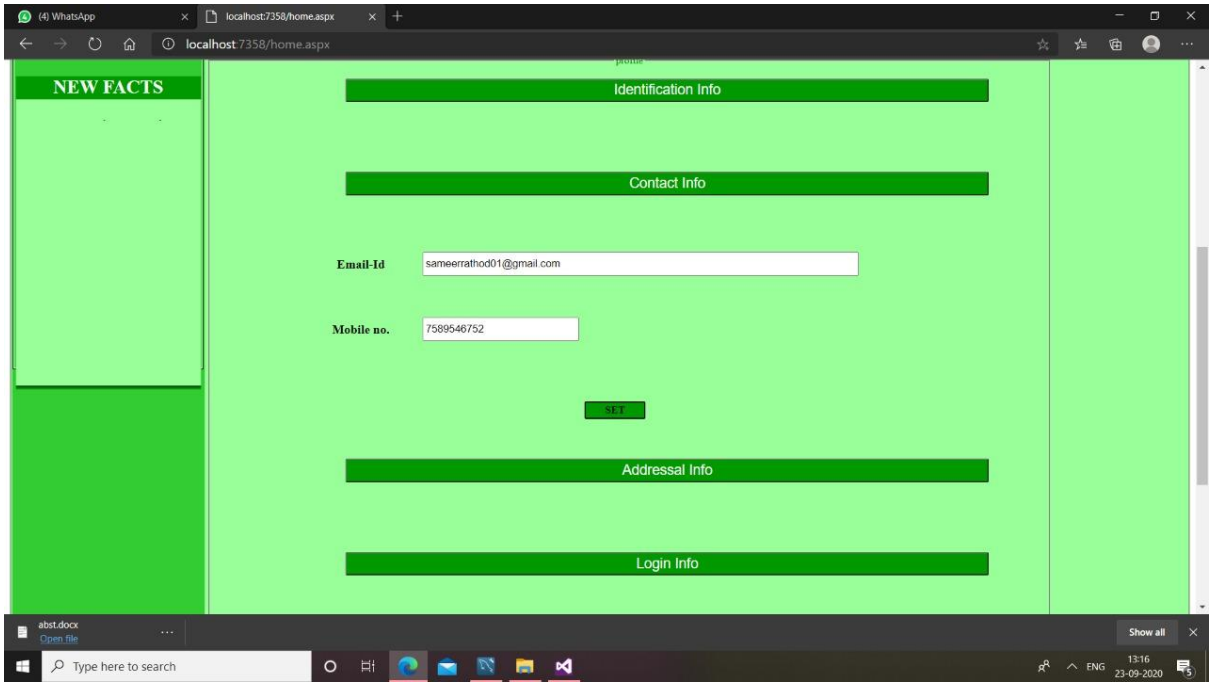

**Create new account:** If you are a new user and want to create account click on Create new account and then the below page will appear fill in the valid username and a difficult password -> create account and your account will be created.

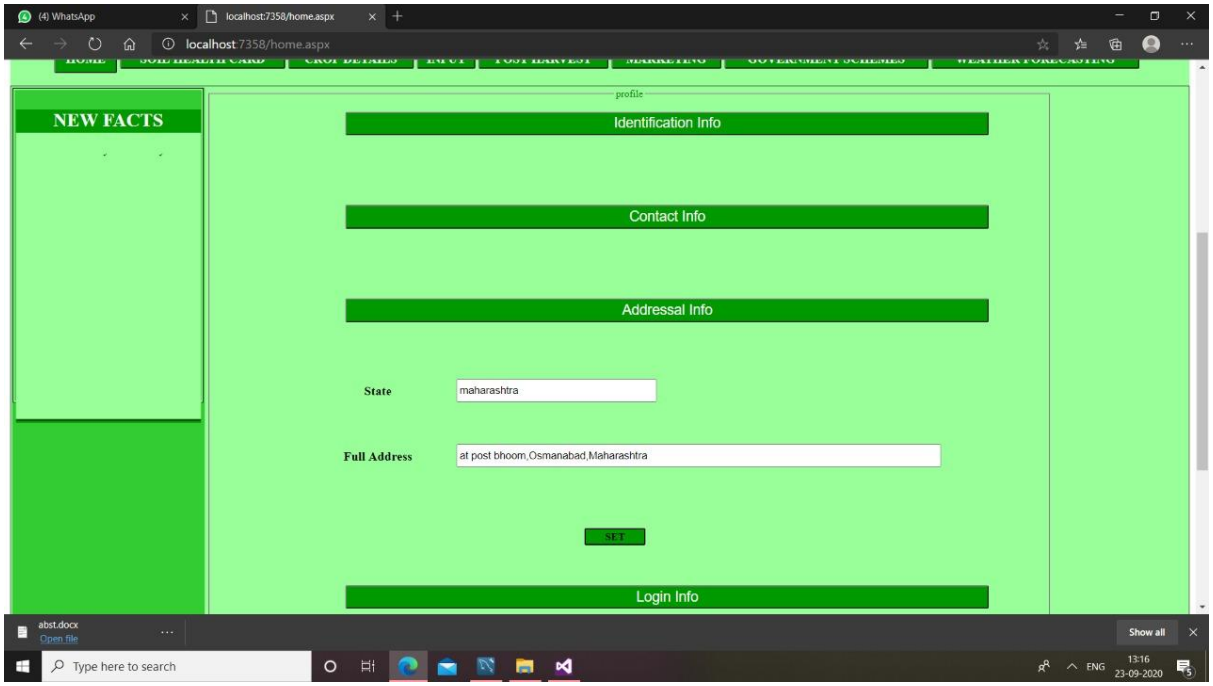


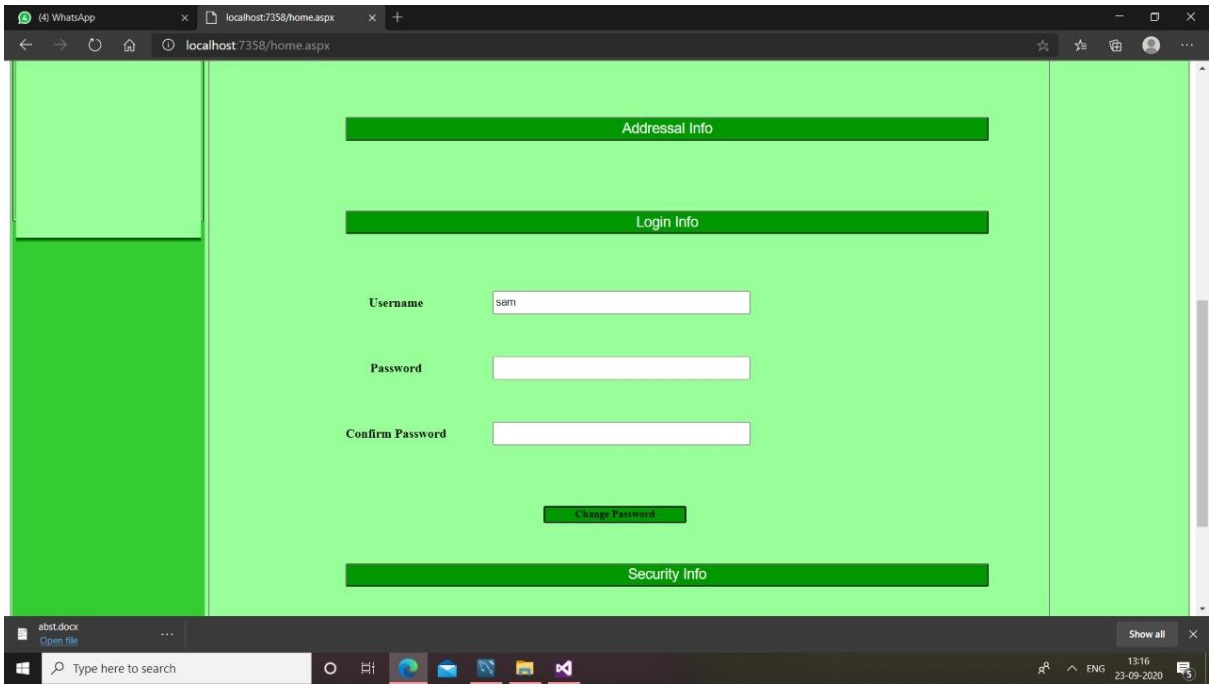

**Profile:** Click on your profile button then the profile page will be displayed. There you have to enter your Identification information, Contact information, Addressal information, Login Information and Security information.

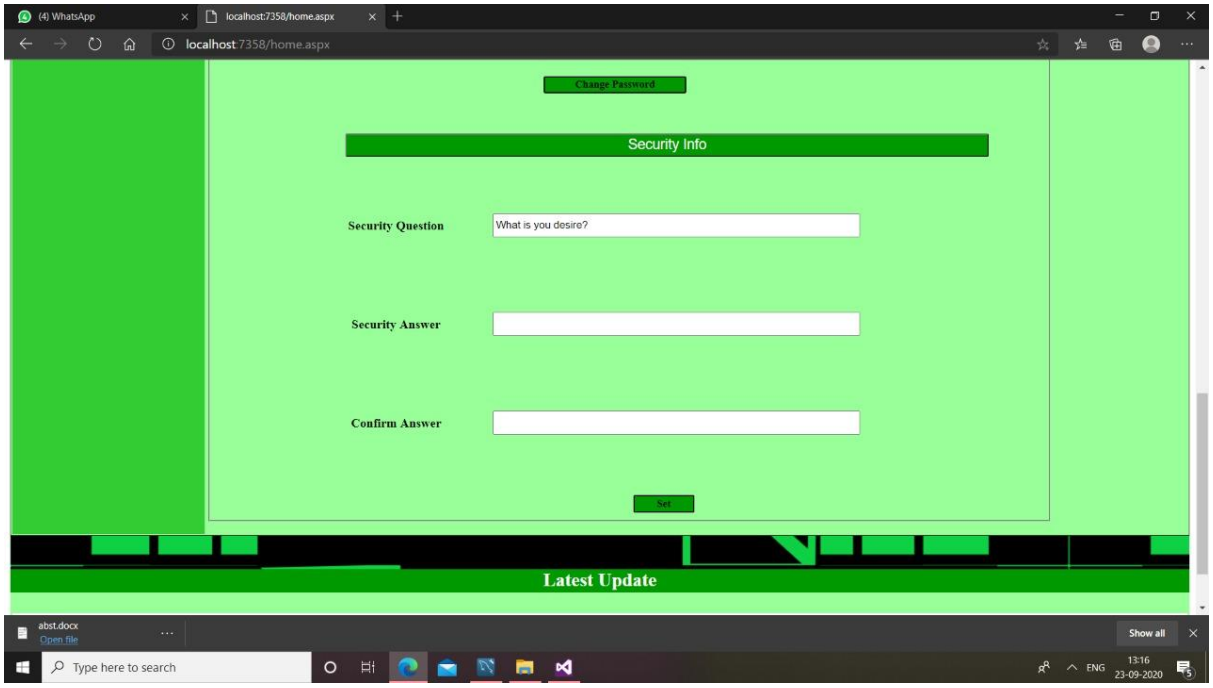
WhatsApp
localhost:7358/home.aspx
localhost:7358/home.aspx
KRUSHI AGRO-MANAGEMENT CENTRE
sam
profile
about us
help
logout
HOME
SOIL HEALTH CARD
CROP DETAILS
INPUT
POST HARVEST
MARKETING
GOVERNMENT SCHEMES
WEATHER FORECASTING
New facts


(4) WhatsApp
localhost:7358/home.aspx
localhost:7358/home.aspx
NEW FACTS
Varieties With Recommended Ecology As Late Sown?
Do You Want To Know The PADDY Varieties With Recommended Ecology As Rainfall And Maturity Of 90 Days?
profile
Identification Info
Full Name
Sameer Rathod
Birth Date
19-10-1975
Gender
male
SET
Contact Info
Addressal Info
abst.docx
Open file
Show all
Type here to search
ENG
13:15
23-09-2020

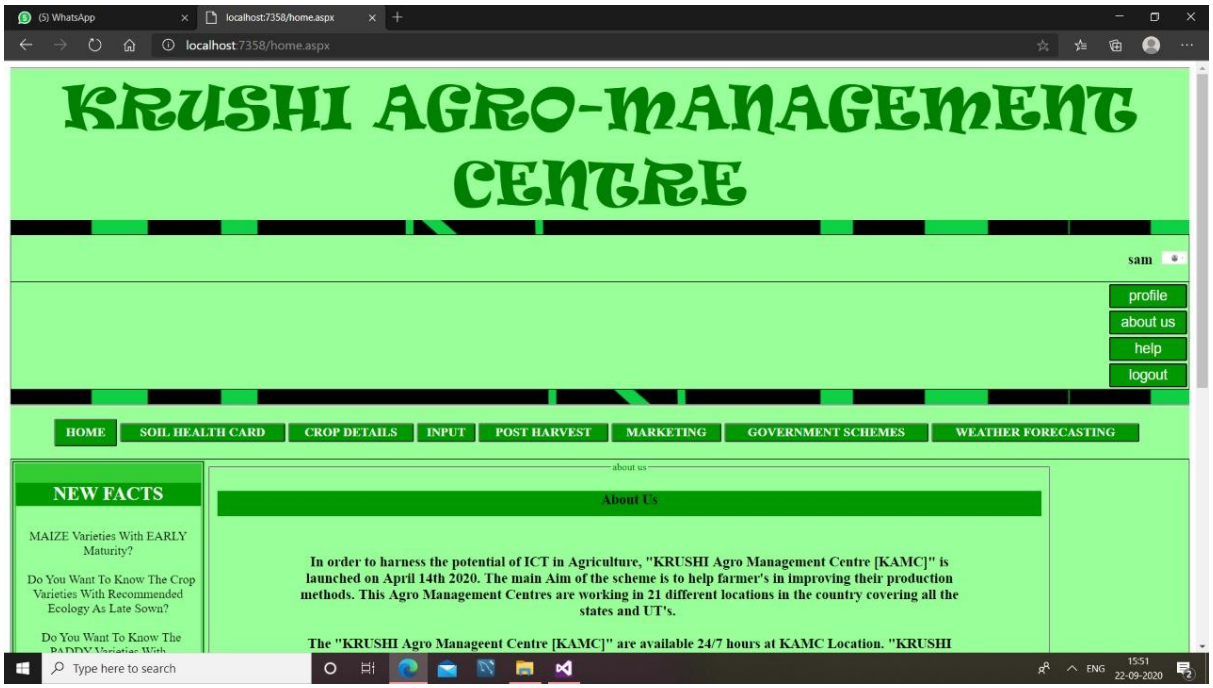

NEW FACTS
Identification Info
Contact Info
Email-Id
sameerrathod01@gmail.com
Mobile no.
7589546752
SET
Addressal Info
Login Info


NEW FACTS
profile
Identification Info
Contact Info
Addressal Info
State
maharashtra
Full Address
at post bhoom,Osmanabad,Maharashtra
SET
Login Info

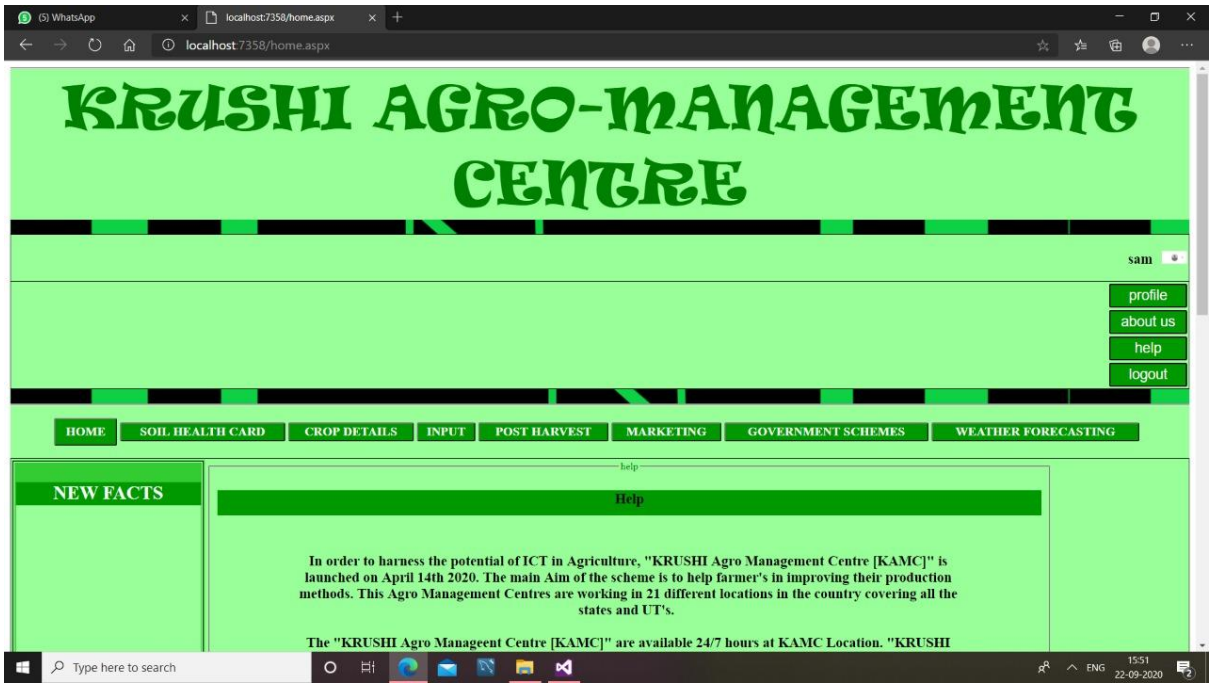

(4) WhatsApp
localhost:7358/home.aspx
localhost:7358/home.aspx
Addressal Info
Login Info
Username
sam
Password
Confirm Password
Change Password
Security Info
abst.docx
Open file
Show all
Type here to search
ENG
13:16
23-09-2020


(4) WhatsApp
localhost:7358/home.aspx
localhost:7358/home.aspx
Change Password
Security Info
Security Question
What is you desire?
Security Answer
Confirm Answer
Set
Latest Update
abst.docx
Open file
Show all
Type here to search
ENG
13:16
23-09-2020

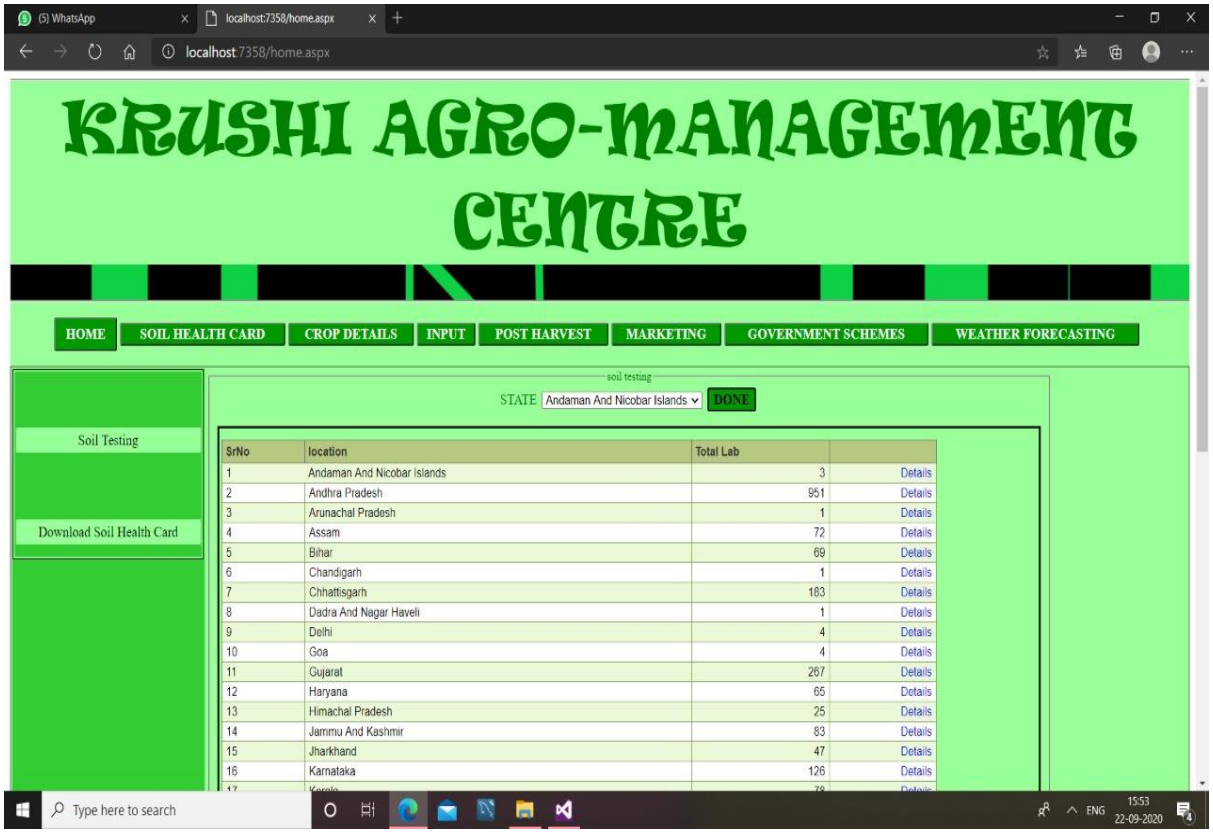
**About us:** Click on your profile button a menu will appear click on About us then the below page will be displayed. Here, you will get information about product.



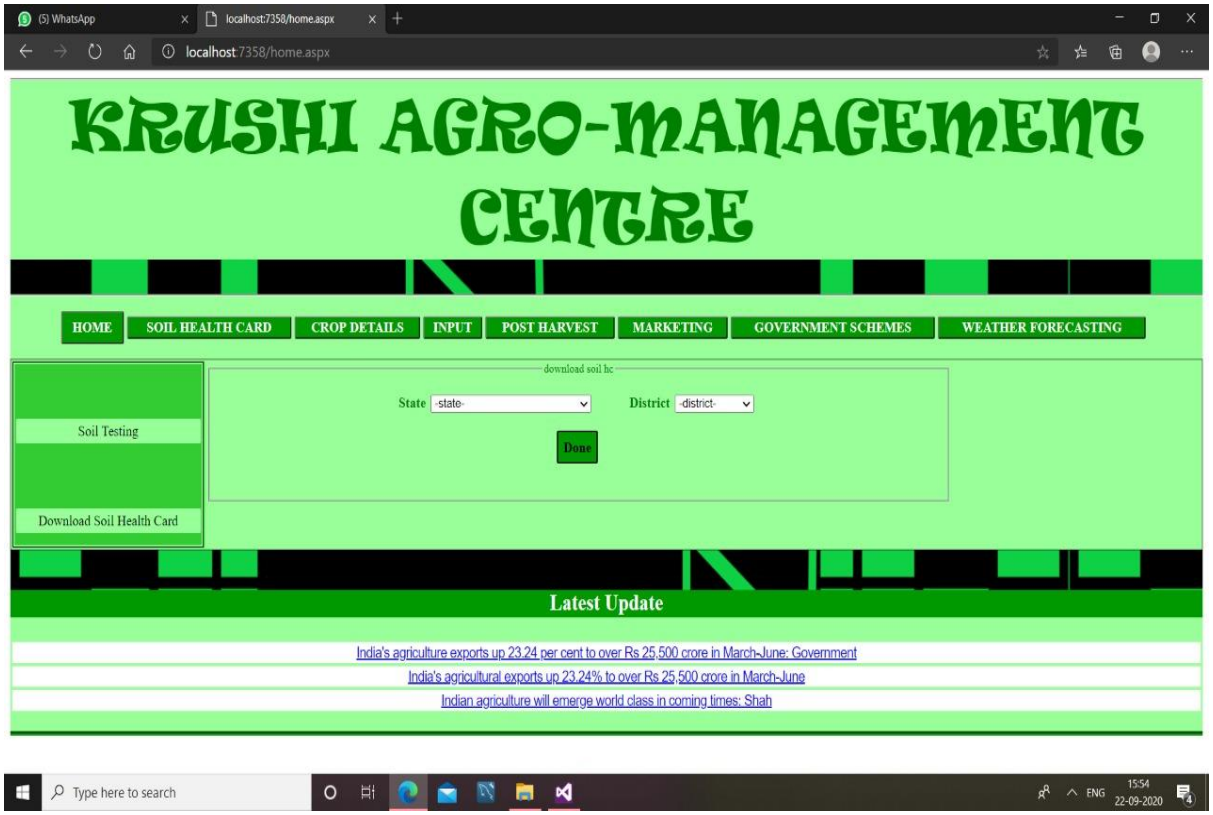

**Help:** Click on your profile button a menu will appear click on Help. Here, you can ask for help.



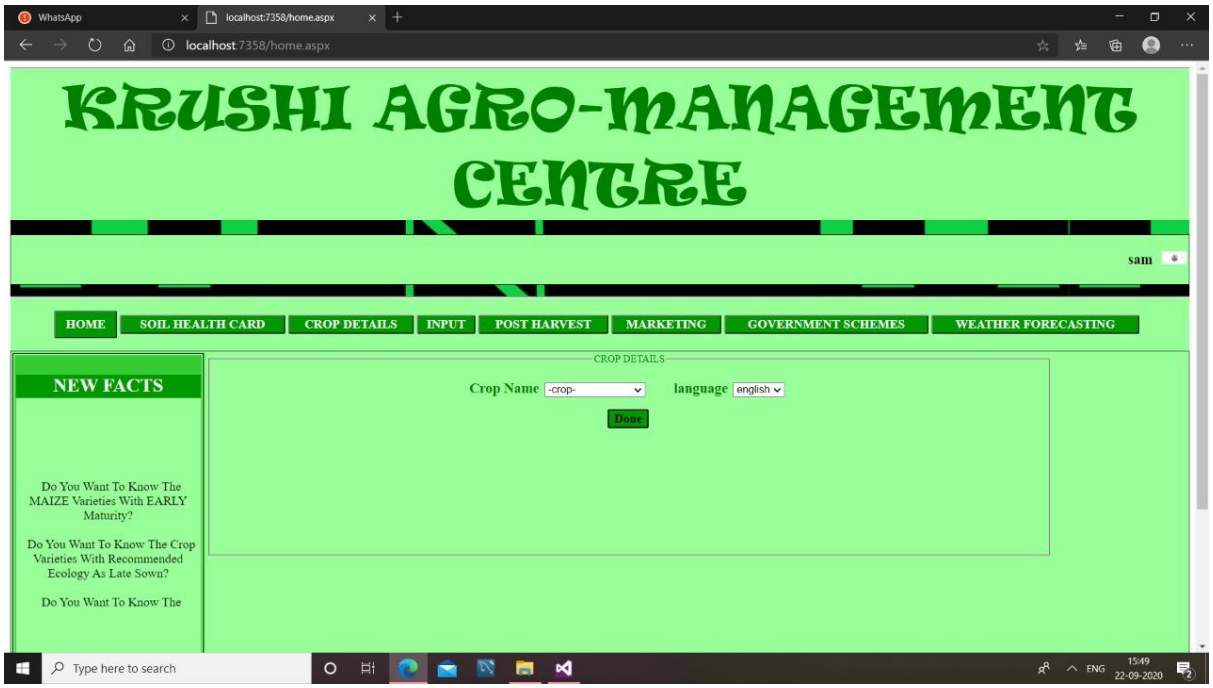
**Soil Testing:** Click on Soil health card -> soil testing and the below table will appear here you have to enter your state and you will get the information of total number of soil testing laboratories near you, there you can check the contact details and other details of that specific lab.



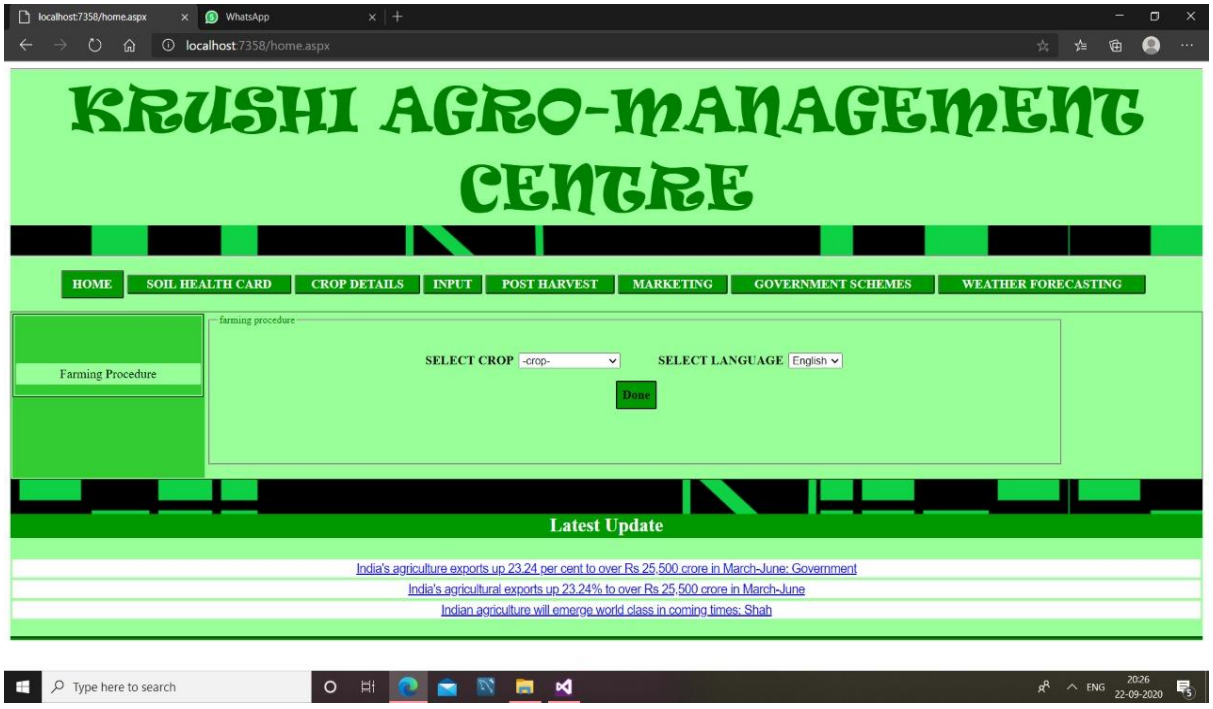
**Soil Health Card:** after testing your soil click on Download soil health card here, you have to enter name of your state and district and then you can download the soil health cards of your region.



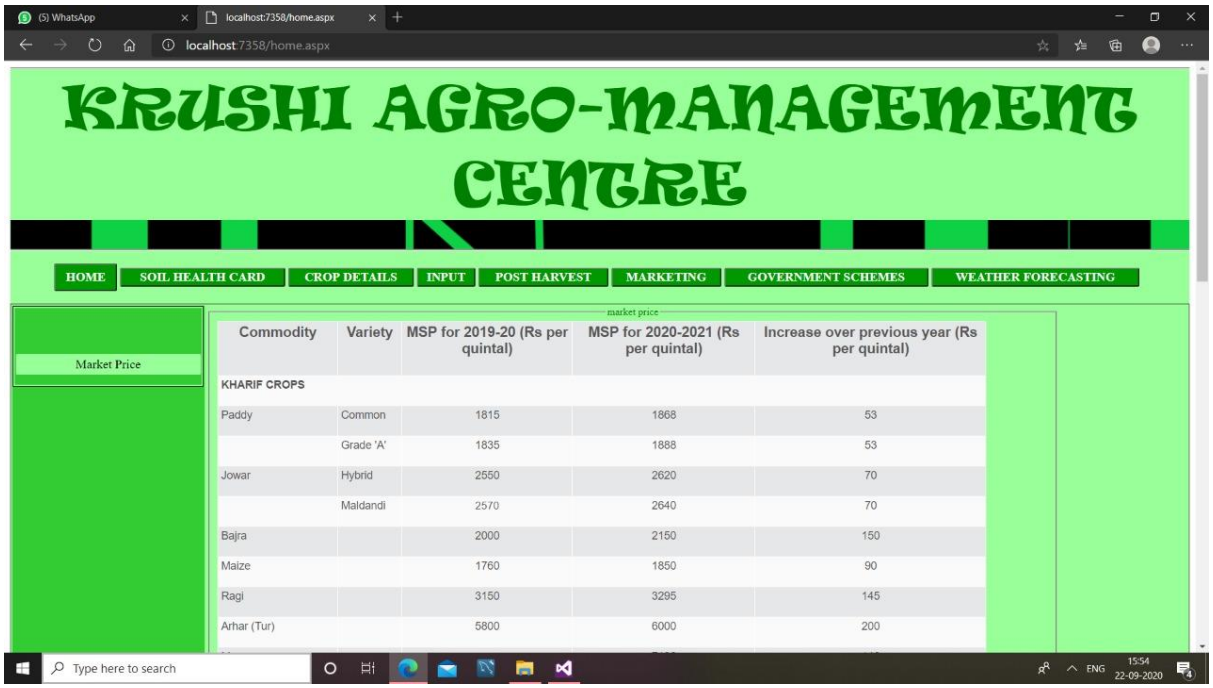
**Crop Details:** Here, you have to enter the name of the crop you need to know the information about and enter the language in which you want to know the information in.



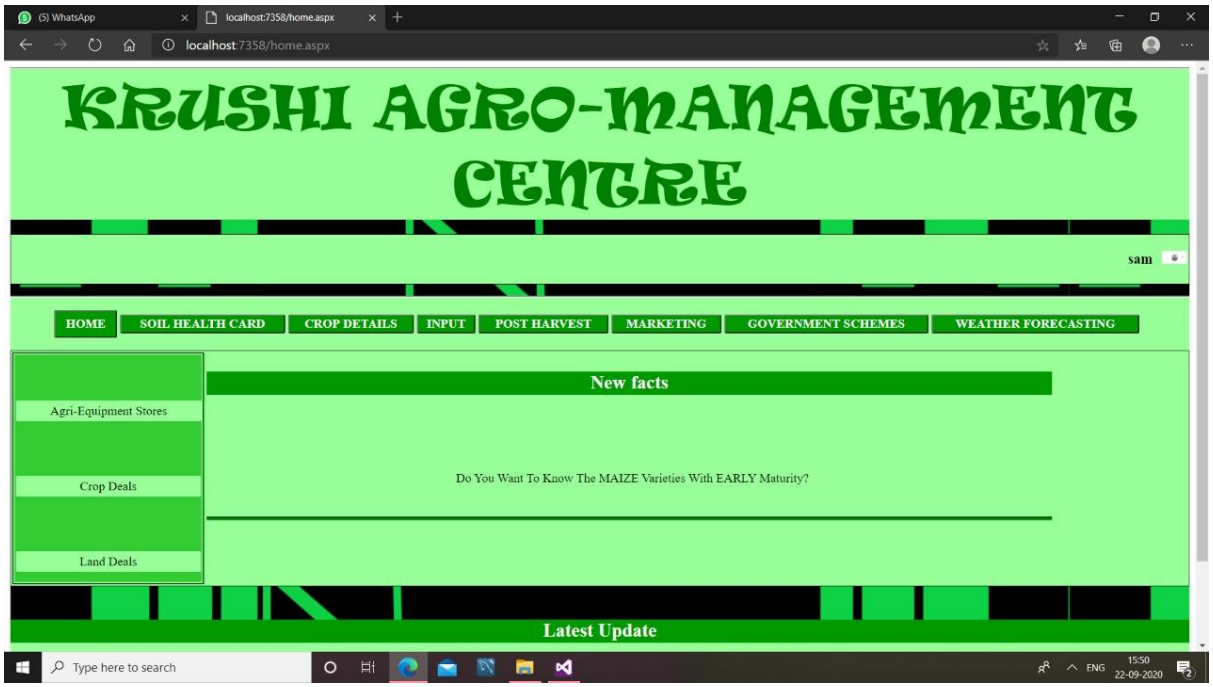

**Input:** After clicking on the input the below page will be displayed. First click on Farming procedure then select the crop and select the language.



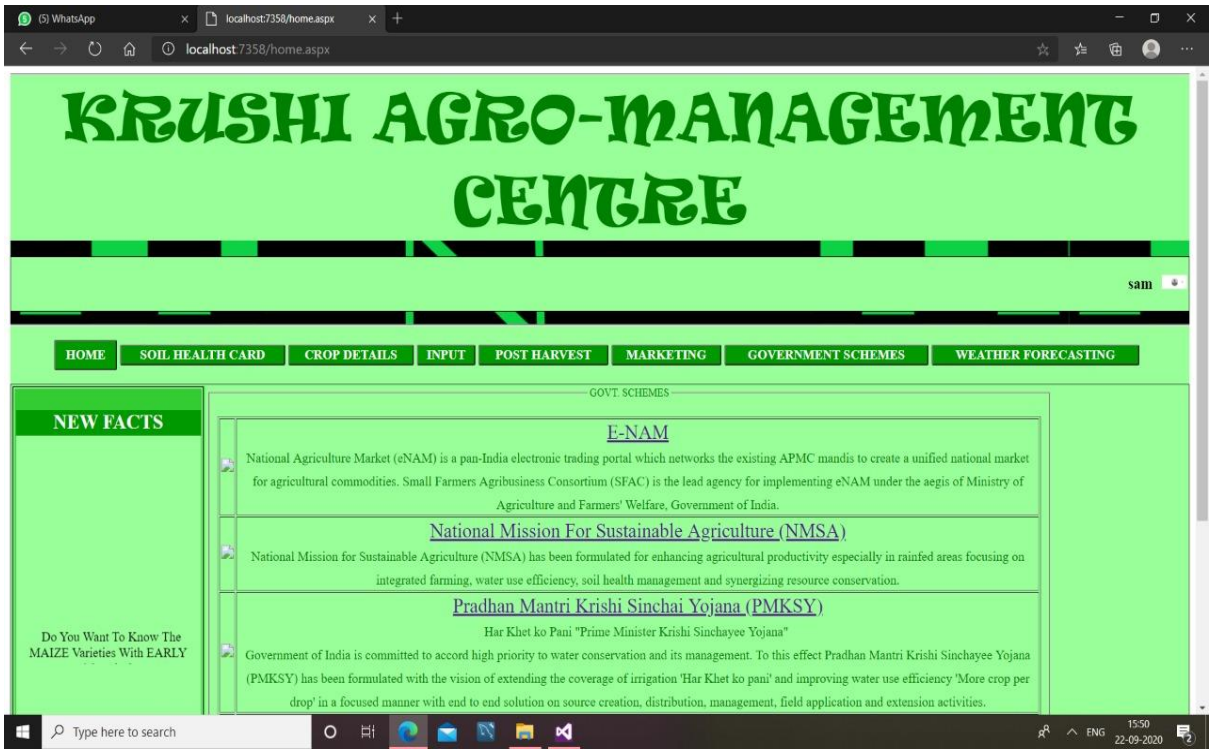
**Post-Harvest:** click on Post harvest -> Market price then the below page will be displayed here you check the market price of the crops.



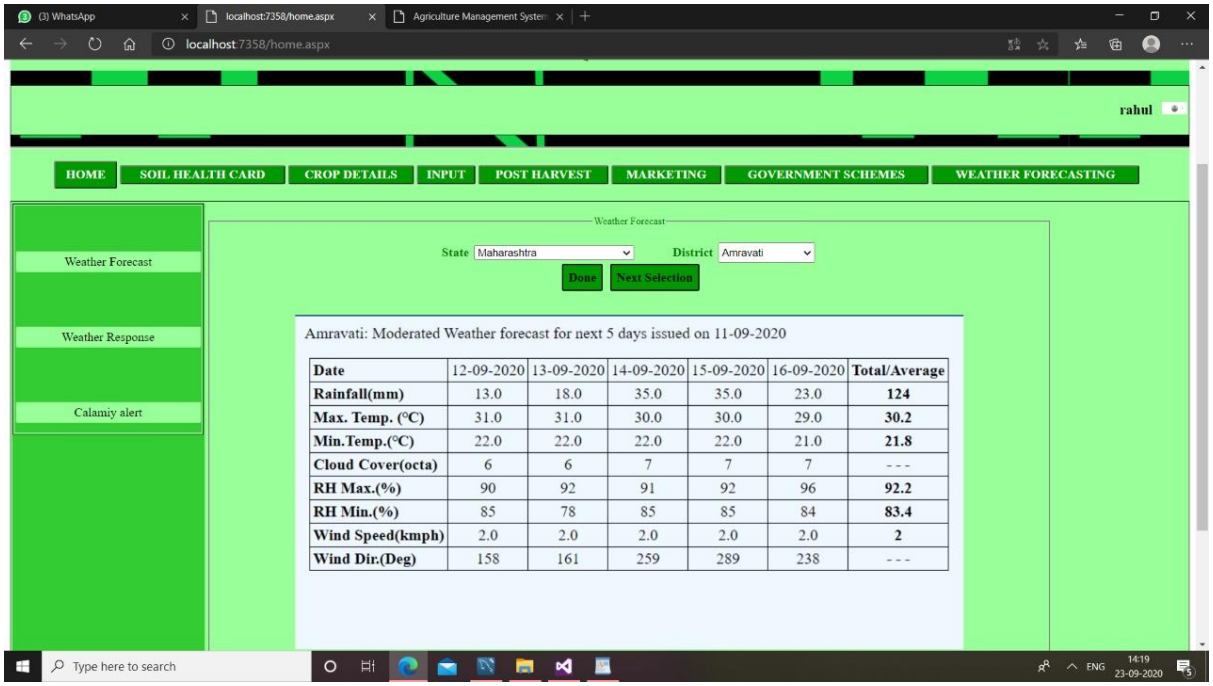

**Marketing:** This page will work same as other online shopping websites (such as Amazon.com). In this page you will get three options: Agri-Equipment stores, Crop deals and Land deals.



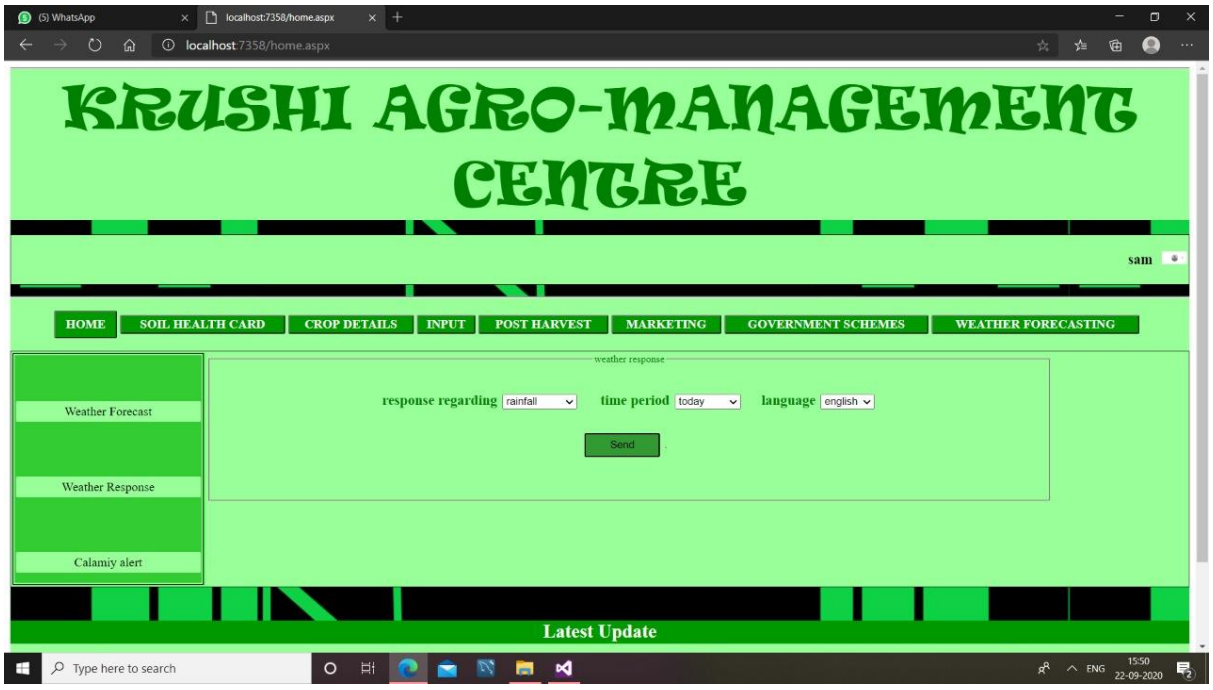
**Government Schemes:** Here, the farms will get the updated news related to the government schemes related to the agriculture sector.



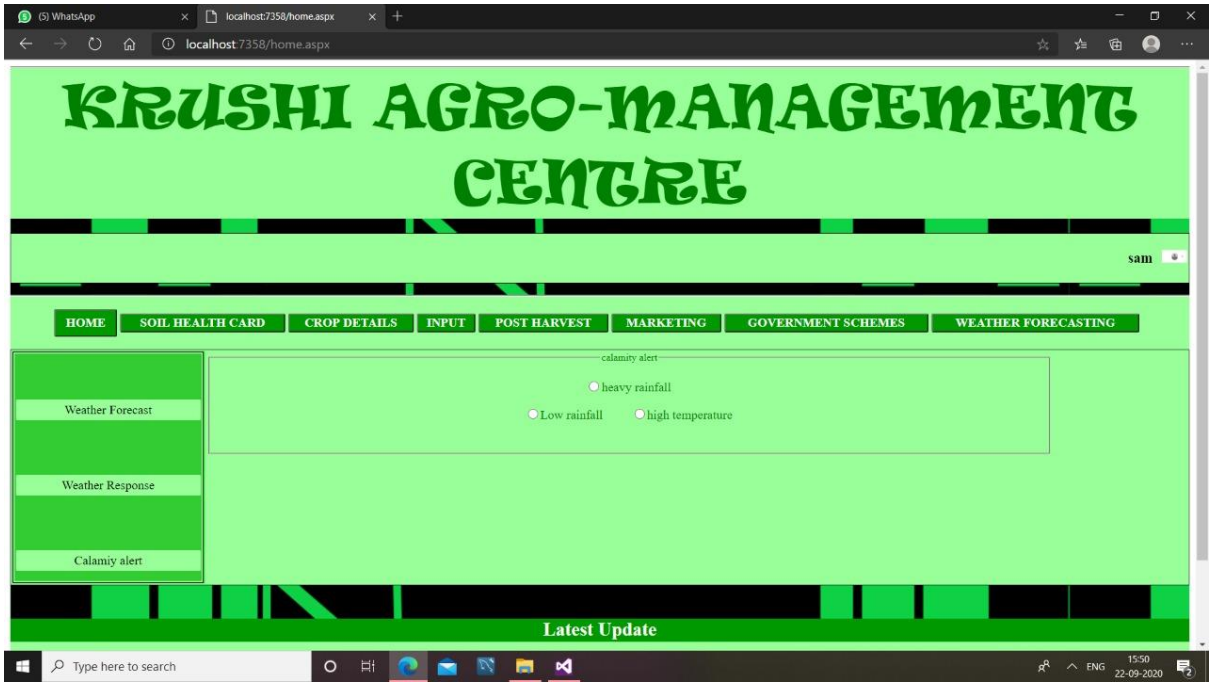

**Weather Forecasting**: Click on Weather Forecasting -> enter the name of the state and district -> done, then the weather report of that district will be displayed as show in the below image.




**Weather Response:** Here, after clicking on the Weather response -> fill in the response regarding section -> select the time period -> select the language. After that you will get the information (If you have an e-mail account you will receive a mail about the weather response) about the weather on your phone.




**Calamity Alert:** Here, you will be alerted if there is any situation of Heavy rainfall, Low rainfall or High temperature.




## CONCLUSION

To eliminate the earlier problems faced by the farmers, we have designed & developed this website. It enhances the production & helps in the development of Agriculture Sector. This website will make farming trouble free & reduce most of the burden faced by the farmers. Our only aim was to make farming process easier. The website includes "government schemes" section which will help farmers to understand schemes and policies in detailed and on a adequate time. As well it allows farmers to contact directly to other side person (for importing or exporting) without any broker in between them which will save their most of the time and money.

## FUTURE SCOPE OF THE PROJECT

Agriculture sector contributes the great economical support in India's economy. But from few years, we are facing lot of problems. In order to eliminate this issue, we have design this project. This project will help the farmer to enhance the agricultural production which will indirectly help our nation economy. This project will help them to save time and money which they spent on trying various resources for adequate information regarding agriculture process.

Our project will keep the farmer updated with the upcoming governments acts and policies developed for farmers welfare which are mostly unknown to some farmers. It will introduces the concept of modern-age farming with the upcoming technological researches in agriculture sector as well It will bring a systematic and well-planned Agriculture process into existence which will be known to all Indian farmers.

# REFERENCES

- **Internet**

## WEBSITES VISITED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- https://www.newindianexpress.com/business/2020/aug/18/indias-agriculture-exports-up-2324per-cent-to-over-rs-25500-crore-in-march-june-government-2185057.html

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