WEB TECHNOLOGY

MINI PROJECT

IT7412

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PROJECT TITLE

SMART FARM

PROJECT DESCRIPTION:

This is a project based *on SMART FARM.*

This project aims to create an interactive application in which farmers can use this portal to clear their doubts and get benefited.It helps to incorporate new technologies and ideas which helps farmers to enhance the production. In order to make this project user interactive *JAVA SWING* and ECLIPSE IDE platform is used to perform the operations.

OVERVIEW OF THE PROJECT:

In this project, the user(farmer) must have an account in order to proceed to the web site.

The entry page has SIGN-UP and LOGIN options.

After entering the HOME PAGE four menu's are available:

1. CROPS
2. SHOP
3. SCHEMES
4. MACHINARIES

When the user click the specific menu item corresponding page will be opened. The user can access the respective pages.

EXPLANATION OF THE PROJECT:

ENTRY MODULE:

=>The ENTRY PAGE has 2 options:

1.Sign-Up

2.Login

If farmer = NEW USER then SIGN-UP the entry page.

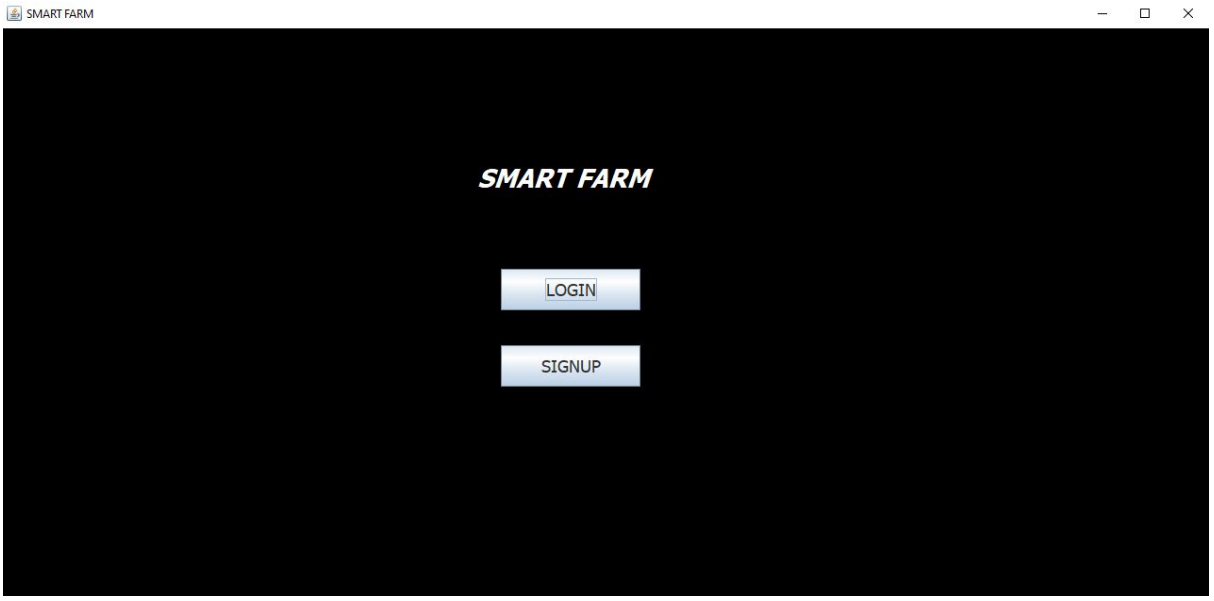
=>The farmer can set up his user-name and password.

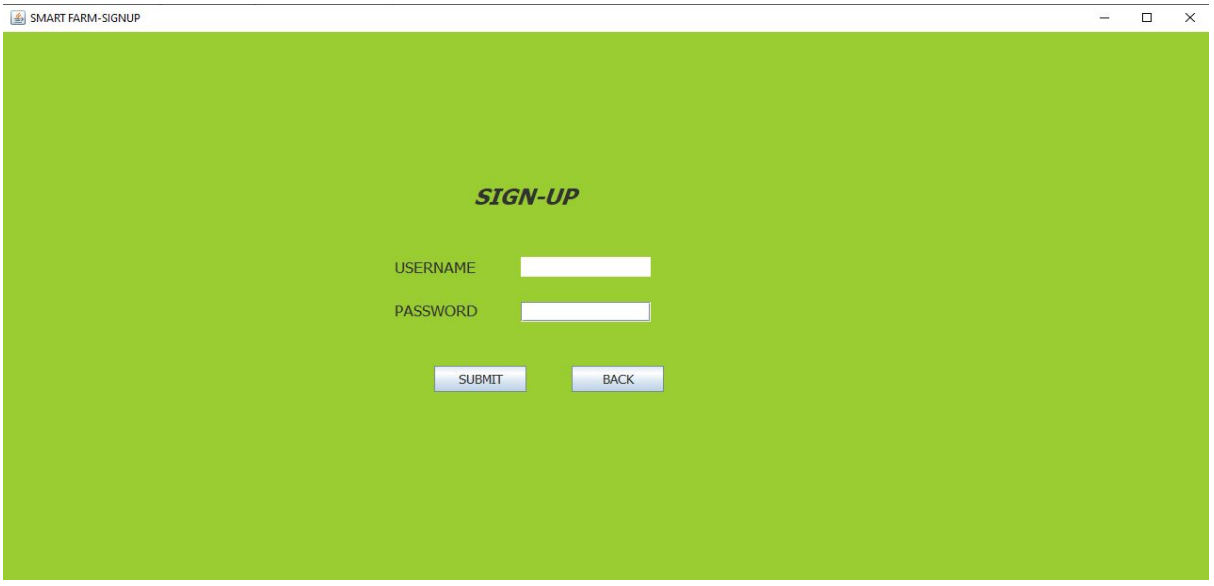
=>The details of the farmer gets added to the Database.

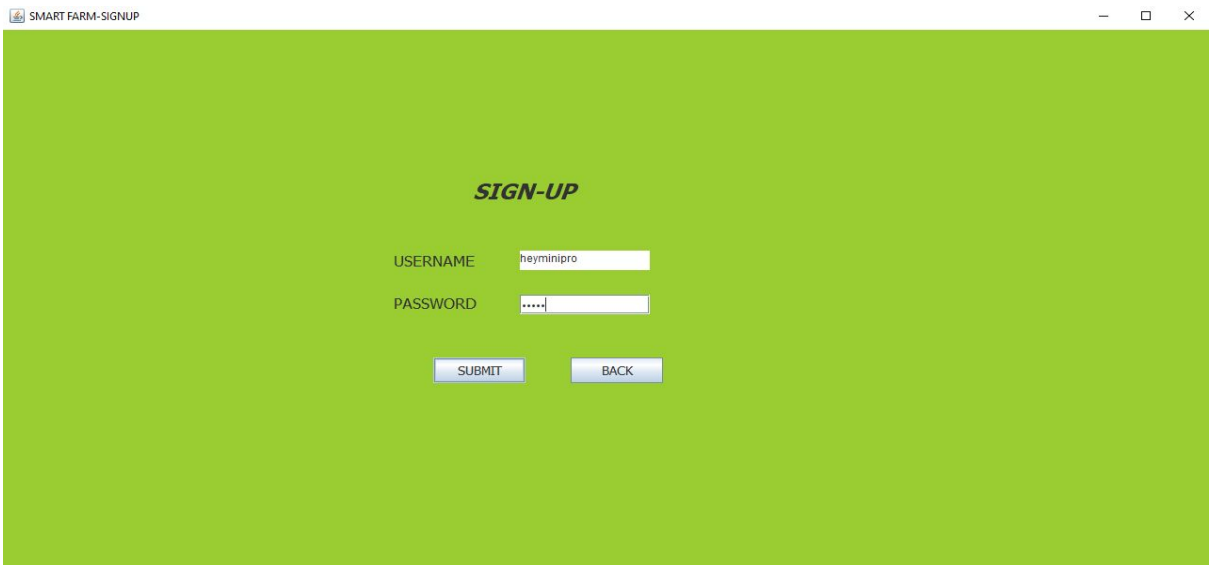
If farmer= OLD USER then LOGIN the entry page.

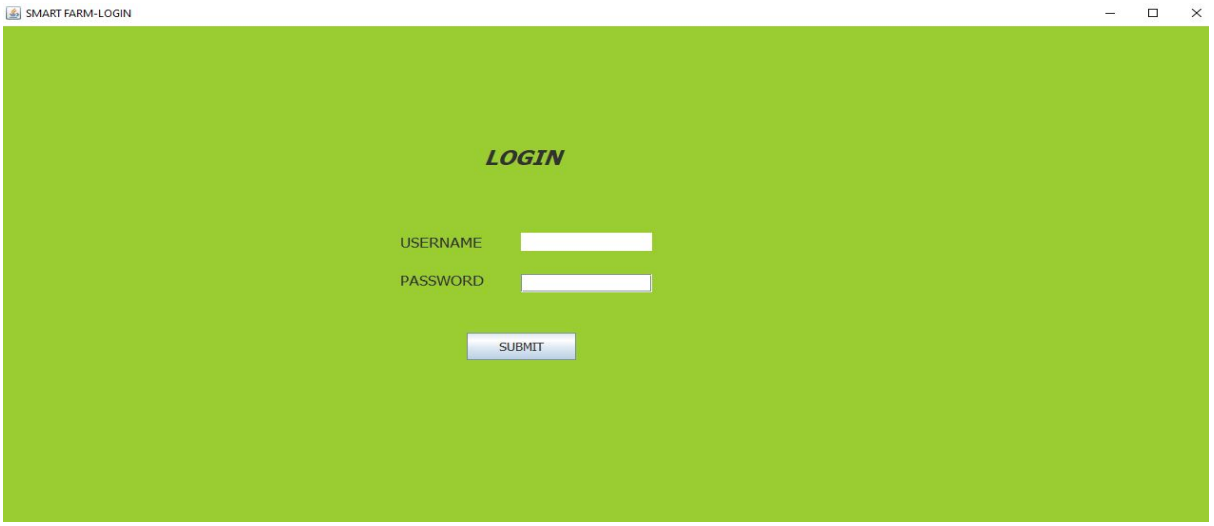
=>If farmer enters wrong credentials (i.e username or password) Error message will be popped.

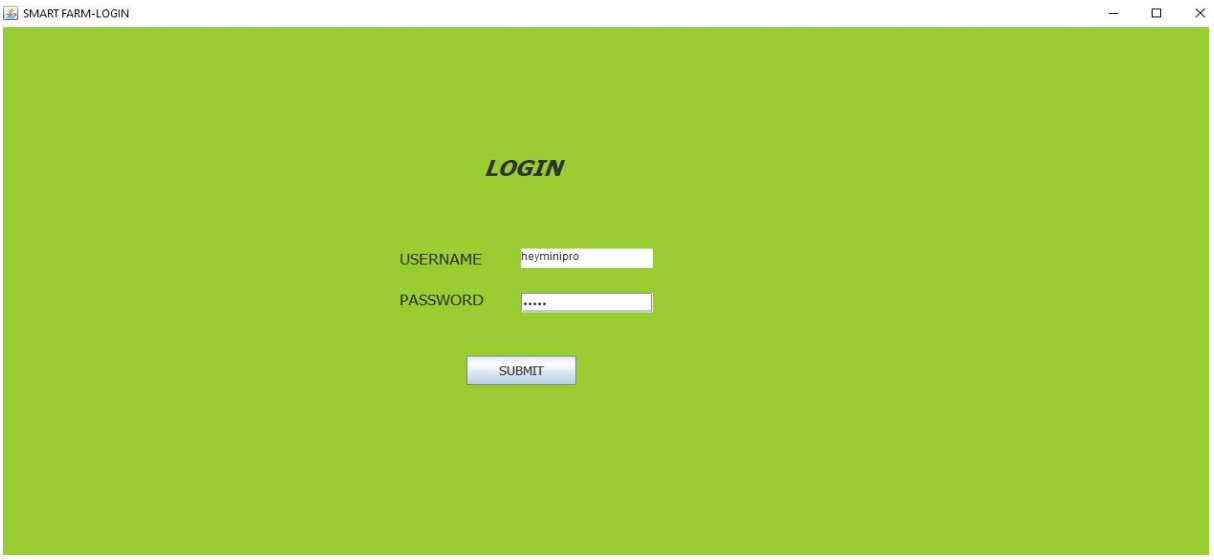
=>The details of the farmer which is already stored in the database is cross checked with the entered details.


SMART FARM
SMART FARM
LOGIN
SIGNUP


SMART FARM-SIGNUP
SIGN-UP
USERNAME
PASSWORD
SUBMIT
BACK


SMART FARM-SIGNUP
SIGN-UP
USERNAME
heyminipro
PASSWORD
SUBMIT
BACK





HOME PAGE MODULE:

=>Once the ENTRY PAGE has been login successfully HOME PAGE will be displayed.

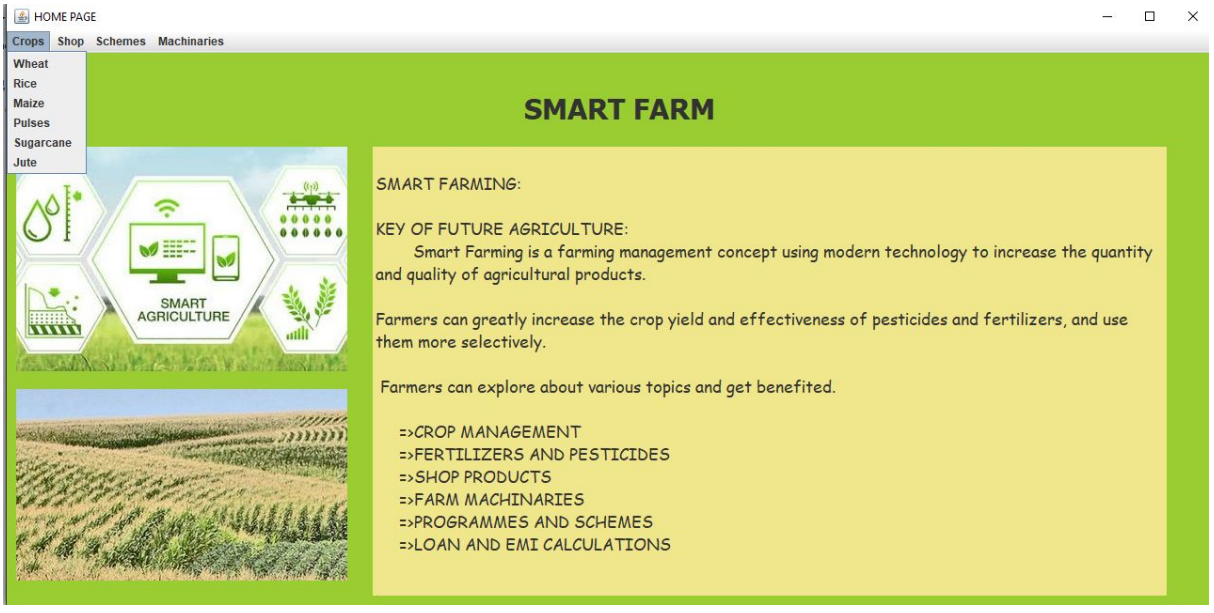
=> 4 menu's will be available in home page

1. CROPS
2. SHOP
3. SCHEMES

4. MACHINARIES

=>The farmer can use these menu's to enter into the corresponding pages.

=>The Home page describes the *NEED OF SMART FARM* & their importance with Images.



CROPS MODULE:

=>The first menu in Home page where 6 six menu items are available.

1.WHEAT

2.RICE

3.MAIZE

4.SUGARCANE

5.JUTE

6.PULSES

=>By clicking specific menu item the farmer can go to corresponding crop pages.

=>The information (includes suitable climatic conditions, fertility soil, temperature etc..) regarding the *CROPS* will be displayed along with their images.

=>A button *BACK* will be there in order to go to previous page.

WHEAT

WHEAT

BASIC GUIDELINES:

=>Wheat is the main cereal crop in India.
=>Wheat growing zone in TN:Nilgiris & Palani Hills of Tamil Nadu.
=>Climate requirement:The best wheat are produced in areas favoured with cool, moist weather.
=>The optimum temperature range for ideal germination is 20-25 deg Celsius.
=>Soil: Soils with a clay loam ,good structure and moderate water holding capacity are ideal for wheat cultivation.
=>Fertilizer Management: 120 kg nitrogen, 60 kg phosphorus and 30 kg potash per hectare were required for optimum productivity.
=>Nutrient Management: strategies may include:

a.Site specific nutrient management.
b.Integration of crop residues.
c.Tillage techniques like FIRBS.
d.Remote sensing for efficient Nutrient management.

BACK

RICE

RICE

BASIC GUIDELINES:

=>Climate requirement: Rice crop needs a hot and humid climate.

=>Nutritional value: Rice is a nutritional staple food containing carbohydrate (starch).

=>Medicinal value: Treats many health related maladies such as indigestion, diabetes, arthritis, paralysis, epilepsy.

=>Crop production practices:

a.Dry or Semi-dry upland cultivation.
b.Wet or lowland cultivation

BACK

MAIZE

MAIZE

BASIC GUIDELINES:

=>Maize (Zea mays) is known as queen of cereals because it has the highest genetic yield potential among the cereals.

=>Maize growing zones: AP,Karnataka,Rajasthan.

=>Soil: Maize can be grown successfully in variety of soils ranging from loamy sand to clay loam.

=>Industrial products: starch, oil, protein, pharmaceutical and paper industries.

BACK

PULSES

PULSES

BASIC GUIDELINES:

=>Pulses are cheap source of plant protein.
=>Pulses Growing Zones: Haryana,Punjab,Rajasthan.
=>Climatic requirement: Pulse crops are cultivated in Kharif, Rabi and Zaid seasons of the Agricultural year.
=>Seed varities:
1.chickpeas
2. pigeon pea
3. moong beans
4. urd
5.masur
6.peas
7.various kinds of beans.

BACK

SUGARCANE

SUGARCANE

BASIC GUIDELINES:

=> Sugarcane (Saccharum officinarum) is widely grown crop in India.
=>Sugarcane cultivation zones: TN,AP,Maharashtra.
=>Climatic requirements: For ripening ,low temperatures in the range of 12° to 14° are desirable.
=>Soil: thrives best on well drained soils.
=> Seed varities:
1. Co 0118
2. Co 0232
3. Co 0237
4. Co 0238
5. Co 0239
6. CoSe 01421
7. Co 05009

BACK

JUTE

JUTE

BASIC GUIDELINES:

=>Jute is an important natural fibre crop in India.
=>Jute cultivation zones: Assam, UP, West Bengal.
=>Climatic Requirements: The suitable climate for growing jute is warm and wet climate.
=>Soil: The new gray alluvial soil is best for jute.
=>Seed varities:
1. AAUOJ-1 (Tarun)
2. JBO-2003H (Ira)
3. JRO-204 (Suren)
4. S-19 (Subala)
5. JRO-8432 (Shakti)
6. CO-58 (Sourav)
=> Pest and diseases:
1. Stem girdling beetle: Management strategy: Spray application of phosalone 0.07% or endosulfan 0.07 % at fortnightly interval.
2. Jute weevil: Spray application of phosalone 0.07% or endosulfan 0.07 or cypermethrin 0.005%.
3. Spodoptera exigua: Management strategy: Collection and destruction of egg masses.

BACK

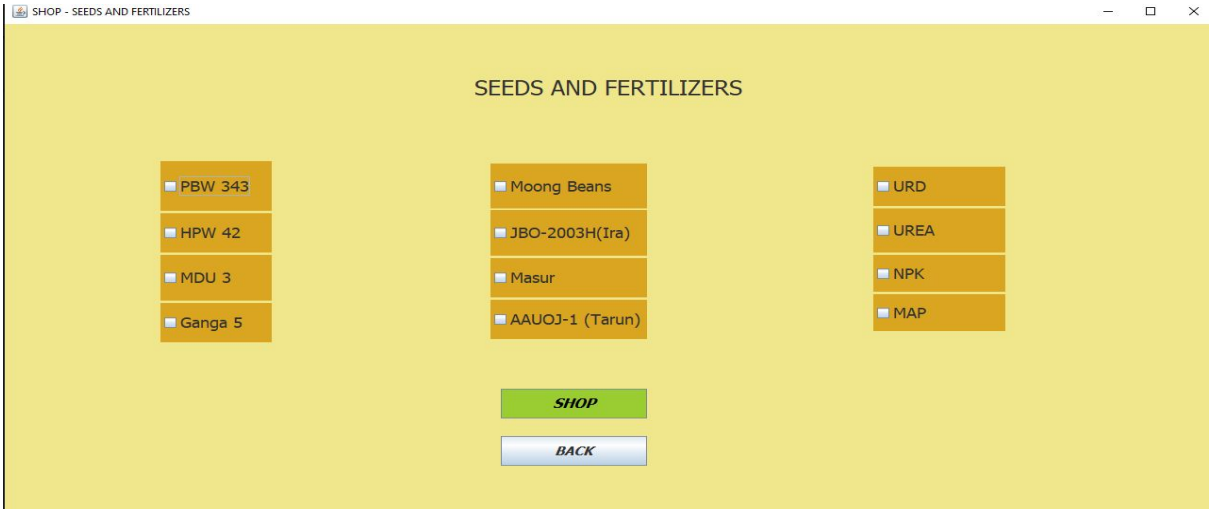
SHOP MODULE:

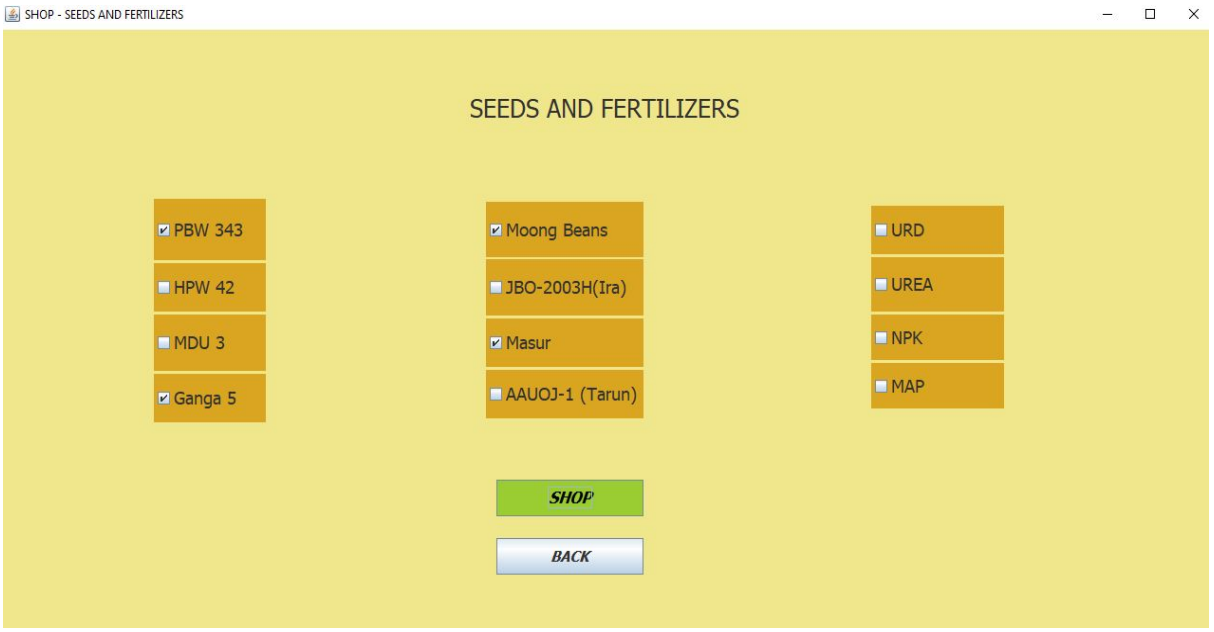
=>The shop page contains *SEEDS* and *FERTILIZERS.*

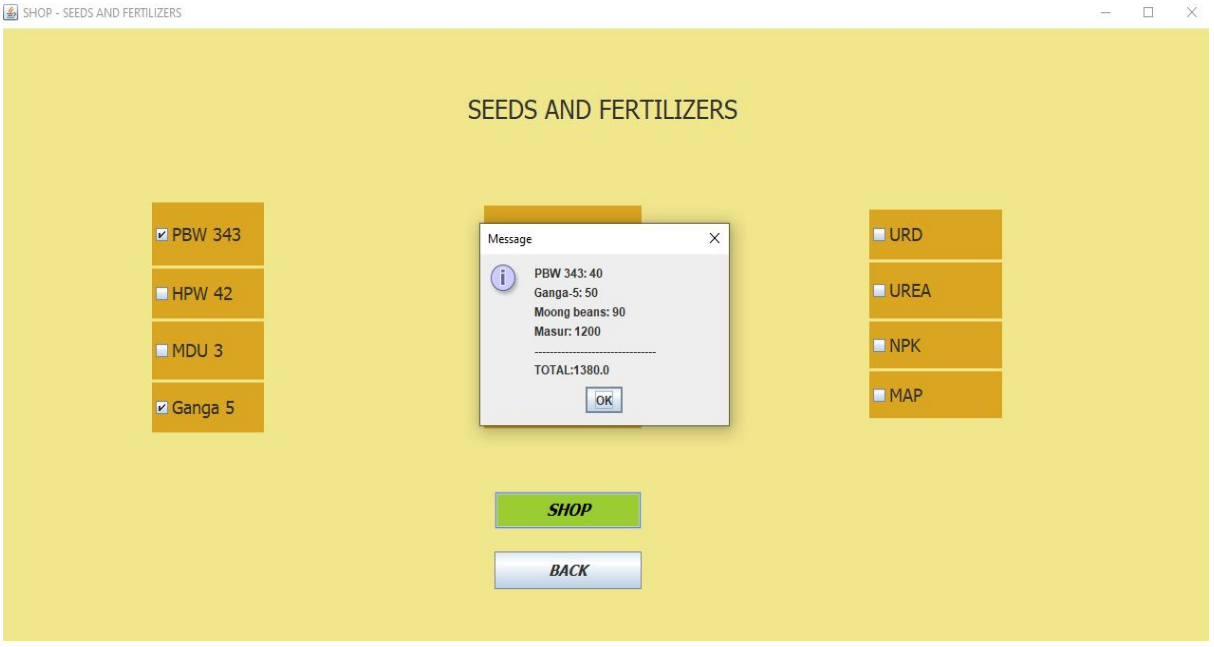
=>If farmer wants to purchase items (i.e: SEEDS & FERTILIZERS) click corresponding items and press the *SHOP BUTTON.*

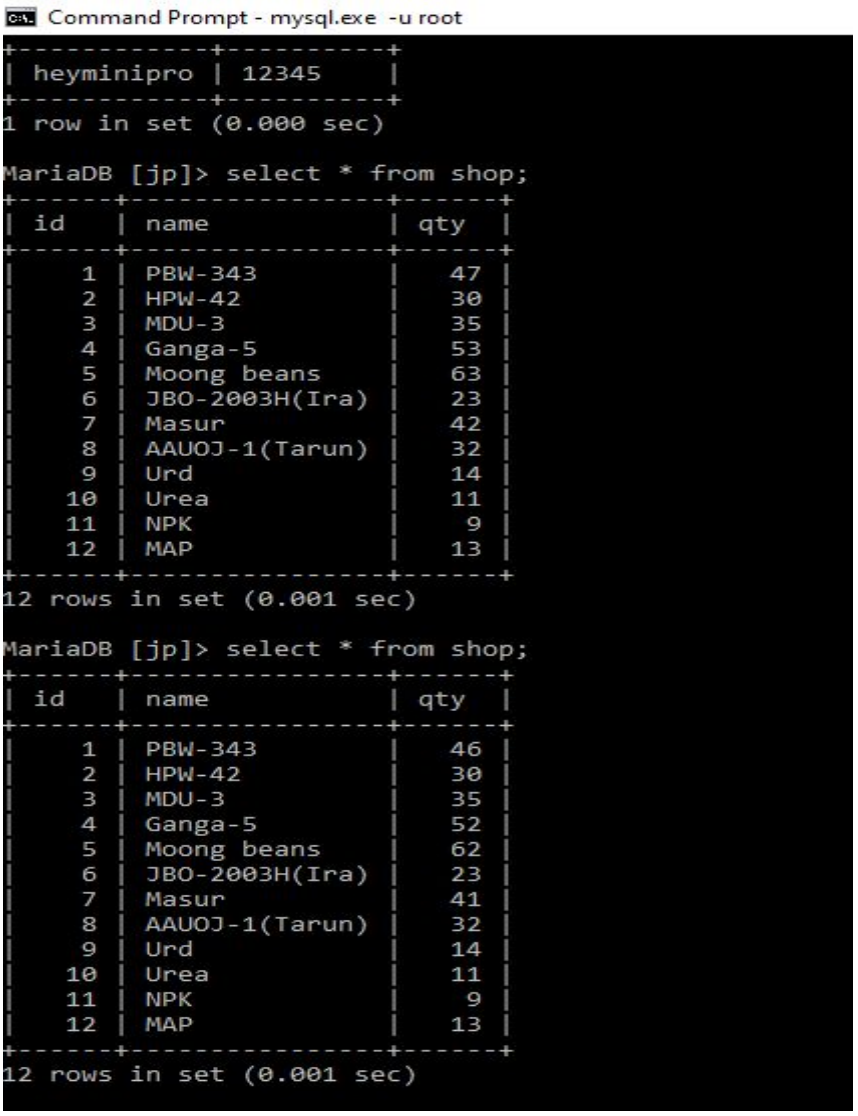
=>The amount required to purchase the items will be displayed.

=> The seeds and fertilizers along with their quantity will be stored in the Database, if any item is purchased then the quantity of that item will get decreased in the Database.




SHOP - SEEDS AND FERTILIZERS
SEEDS AND FERTILIZERS
PBW 343
HPW 42
MDU 3
Ganga 5
Moong Beans
JBO-2003H(Ira)
Masur
AAUOJ-1 (Tarun)
URD
UREA
NPK
MAP
SHOP
BACK


SHOP - SEEDS AND FERTILIZERS
SEEDS AND FERTILIZERS
PBW 343
HPW 42
MDU 3
Ganga 5
Message
PBW 343: 40
Ganga-5: 50
Moong beans: 90
Masur: 1200
TOTAL:1380.0
OK
URD
UREA
NPK
MAP
SHOP
BACK

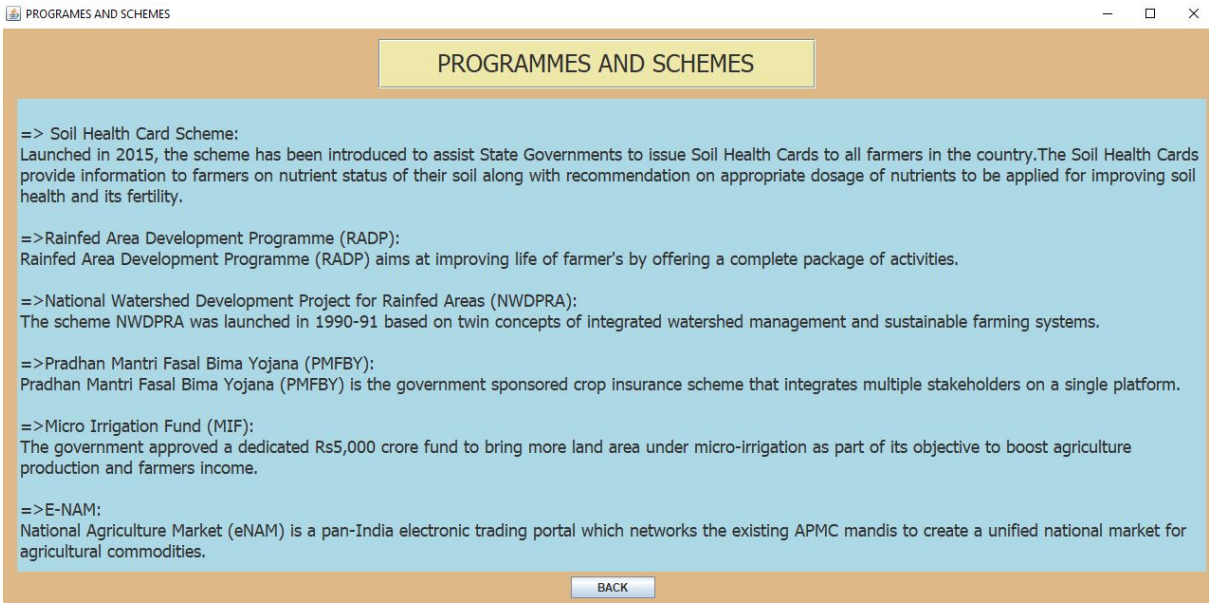


SCHEMES MODULE:

=>By clicking Schemes in the Home Page farmer can visit the SCHEMES page.

=>The *SCHEMES* page contains *PROGRAMS AND SCHEMES* which helps the farmers to know about some popular schemes.

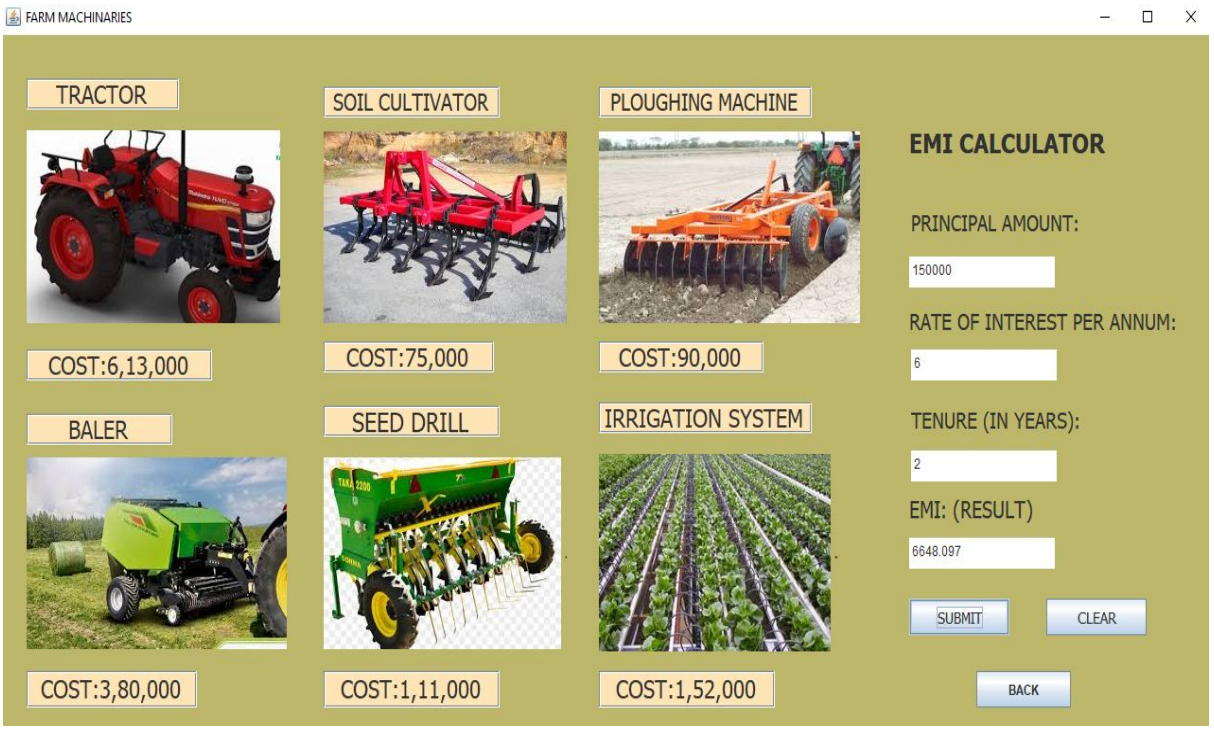
=>The description of the schemes is attached along with their Scheme names.



MACHINARIES MODULE:

=>This page contains the agricultural *MACHINARIES* along with their images and cost which is useful in SMART FARMING.

=>If the farmer wants to apply *loan* the EMI CALCULATOR is available, the farmer can calculate his MONTHLY EMI by entering the principal amount,rate of interest and tenure.



COST ESTIMATION:

ORGANIC:

TOTAL NO. OF LINES: 1712 LOC = 1.712 KLOC

Effort(E)=2.4*(1.712^1.05) = 4.22 ~ 4 person-month

Time(T)= 2.5*(4.22^0.38) = 4.32 months ~ 4 months

Average Person = E/T = 4.22/4.32 = 0.97 ~ 1 person

Productivity = 1712/4 = 428 LOC/person-month

Suppose it is estimated that the project will take Rs.5000/person-month(which may vary).

TOTAL COST: 4*5000=20000