

## Krishi Yug- Unnati ki Aur

1<sup>st</sup> Jay Sharma IT Department, Acropolis Institute of Technology and Research, Indore

2<sup>nd</sup> Khushi Gandhi IT Department, Acropolis Institute of Technology and Research, Indore

3<sup>rd</sup> Kriti Bhawsar IT Department, Acropolis Institute of Technology and Research, Indore

4<sup>th</sup> Love Yogi IT Department, Acropolis Institute of Technology and Research, Indore

5<sup>th</sup> Akshita Mishra IT Department, Acropolis Institute of Technology and Research, Indore

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**Abstract-**Agriculture plays an important role in the Indian economy. Over 70% of the agronomic households lean on agriculture. Agriculture is an vital sector of Indian economy as it share's about 17% to the total GDP and accommodate employ to by 60% of the population.

Indian agriculturist are second to none in origination and capacity despite of this case that millions are negligible and poor farmers. They use revised agriculture technology as accurately as farmers in advanced countries. It is felt that with arrangement of timely and acceptable inputs such as fertilizers, seeds, pesticides, Indian farmers are going to assure food and nutritional security to the Nation. Indian farmers are second to none in origination and capacity of crops and vegetables. It is externalize to make available relevant information and services to the farming community and private sector through the use of advice and communication technologies.

**Key words:** Angular, Spring Boot, MySQL, Bootstrap

### INTRODUCTION

Krishi Yug is an online portal for farmers to facilitate them with adequate information about farming. Through this portal farmers can sell or buy their produce at relevant rates. Krishi Yug provides information to users in the field of seasonal crops, seeds, fertilizers, pesticides etc, it enables user to post their complaint through a form. We also provide a language translation tool so that everyone can figure-out in their own vocabulary. Krishi Yug will be benefit farmers and make them familiar with technology.

Since Indian farmers are main contributors in Indian economy, it is very important to make them familiar with basic farming in formations and updating with the help of

technology so that, they can grow more. Krishi Yug portal is our idea to support farmers with information and services and to keep them updated in farming field.

### Literature Review

1. Agricultural marketing still remains to be in a bad shape in rural India. In the absence of sound marketing facilities, the farmers have to trust-in upon local traders and wholesalers for the transfer of their field produce which is sold at throw-away price. Over time many farmers have each of two committed self-slaughter or have thrown complete produce out due to distaste from the rates set by the government.

2. Indian soils have been used for developing crops over thousands of years without caring much for restore. This has led to reduction and collapse of soils occurs in their low productivity. The equate yields of approximately all the crops are among the lowest in the world. This is a genuine problem which can be solved by using more composts and fertilizers.

3. Most farmers are only familiar with our native language or their mother tongue which generates a barrier between then and most of the assets available online.

4. Over half of the farmers we collaborate with (57%) are unhappy with the mandi system of sale. The bounds are exploitation by CAs, lower price recognition, lack of transparency in the trading growth, collusion among traders, price cartelization, delay in payments and low quality of mandi infrastructure.

5. Seed is a demanding and basic input for obtaining higher crop yields and sustained rise in agricultural production. Distribution of guaranteed quality seed is as demanding as the production of such seeds. Unfortunately, good quality

seeds are out of reach of the majority of farmers, especially poor and minor farmers mainly because of unreasonable prices of better seeds.

## Solution Proposed

For the problems faced by farmers in farming field, lack of information, not getting adequate information from their crops, the system “Krishi Yug” is designed in such a way so that it can assist farmer at anytime and anywhere, keep them updated and provide them complete information from process of buying seeds to crops harvesting. Krishi Yug also provides farmers a feature to sell and buy crops, seeds and fertilizers. This system reduces the problems faced by farmers in field of farming.

By implementing Krishi Yug, our main goal is to make it user-friendly, so that users(farmers) from any background can understand every feature of portal and can use it effectively and can get most out of it. We tried to keep our UI simple so that farmers can find it simple to interact with. Farmers can use it in their own native language, so that language cannot be a barrier in way of understanding features and information of portal. Through Krishi Yug, farmers can get solutions to their problems from Chat-bots and they can also contact us through emails, contact us, and queries form.

Since Krishi Yug is used by farmers, so it is basic requirement for us to implement it in such a way that most of the farmers will find it useful and it can complete all the basic needs that farmers can ask for. For this, we have kept Krishi Yug simple to understand, and keep all the information in a simple and systematic way so that farmers can easily understand it use it by reading only.

The security of user data should be an important concern while creating a website. Therefore in portal Krishi Yug we are providing a very secure authorization through OTP verification. And also there will be a sign-up and sign-in options for the user to access their account. We are also providing language translator tool in Krishi Yug so that everyone can understand in their own language. With the help

of translator they can change the language from default Hindi to the language they want.



Krishi Yug provides many services, the one service is that Krishi Yug includes an Agri Dukan feature using which a user can sell and buy their crops, seeds and fertilizers. Using Agri Dukan they can get a proper amount of their product. The main aim to provide this feature so that a farmer cannot have to compromise with the amount in change of their product.

Another services includes information part which contains the vast information about crops, seeds, fertilizers and pesticides. The information also includes basic requirements to grow a particular crop like weather, amount, fertilizer used, quantity required etc.

The information part also includes a section which is Tools & Machines, it gives information about the basic tools and machines which are used in farming methods. This section contains complete information about the total of seventeen types of tools and machines like their different types, how to use them etc. This tools and machines varies from basic level to high level which are used in different farming method like fertilization, seeding, harvesting etc.



The footer part of portal Krishi Yug provides many availabilities to user. Here they can find a queries form through which they can send their queries to the admin along with their name and email address.

The direct mail option here enables user to send direct mail to the admin's.

Here in footer, they can also find the accounts of Krishi Yug on different social medias like Twitter Face book etc.

In contact us part of footer, users can find the direct contact numbers of the administrative centre of Krishi Yug.

The footer part also contains quick links which enables user to navigate around website quickly.

<b>त्वरित सम्पर्क</b>	<b>संपर्क करें</b>	<b>हमारा अनुसरण करें</b>	<b>जुड़े रहें</b>	<b>त्वरित प्रपत्र</b>
घर हमारे बारे में सेवाएं संपर्क करें कार्यक्रम और योजनाएं	+91 6263160932 +91 8982730961 +91 9009001989	facebook instagram twitter	jaysharmait19@acropolis.in kritibhawsar19@acropolis.in loveyogit19@acropolis.in khushigandhit19@acropolis.in	नाम ईमेल अपनी ईमेल टाइप करें
				<input type="button" value="प्रस्तुत करना"/>

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The portal Krishi Yug contains a JS Chat-bot which gives answers to user questions and queries. It can give answer to the queries which is relates to the crops, seeds, fertilizer etc. In this Chat-bot, user can also use speech to text feature which enables user to type a text by speaking only.

The portal Krishi Yug also enables users to contact us by filling a contact us form. By filling this form, user can communicate with administrators and can ask their queries to the admin. By this form, they can raise their complaints-also.

CONTACT US

**Location:**  
Bypass Rd Behind Square, Mahua Colony, Manglya Satala,  
Indore, Madhya Pradesh 452771

**E-Mail ID:**  
krishiyug@gmail.com

**Call:**  
+91 6263160932

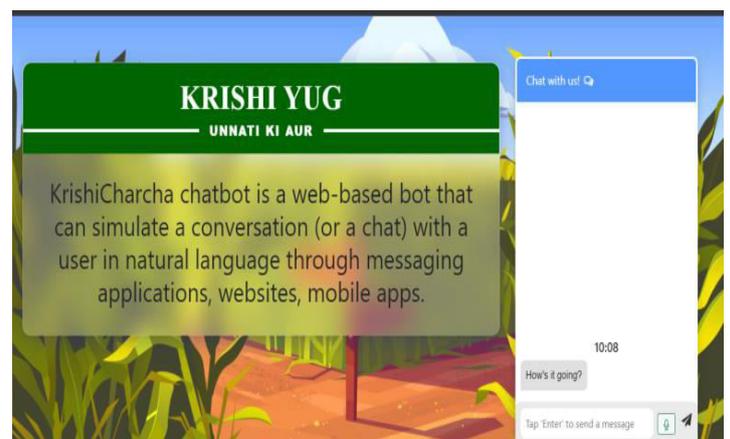
Name\*

Select Country  Select State  Select City

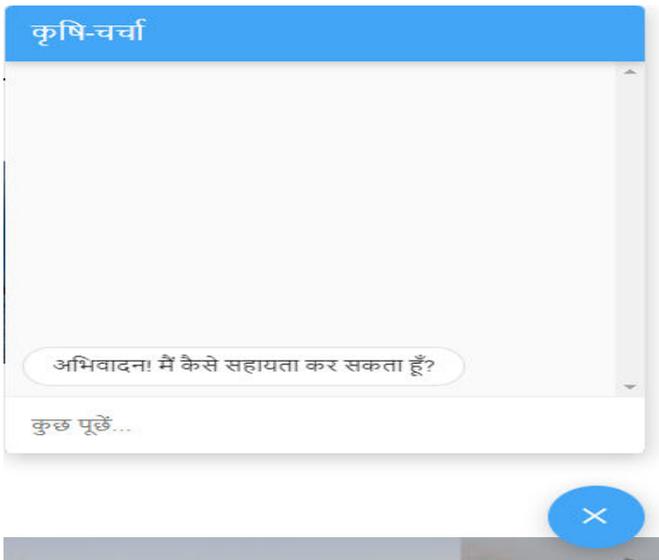
Phone\*

E-Mail ID\*

Please Write Your Query\*



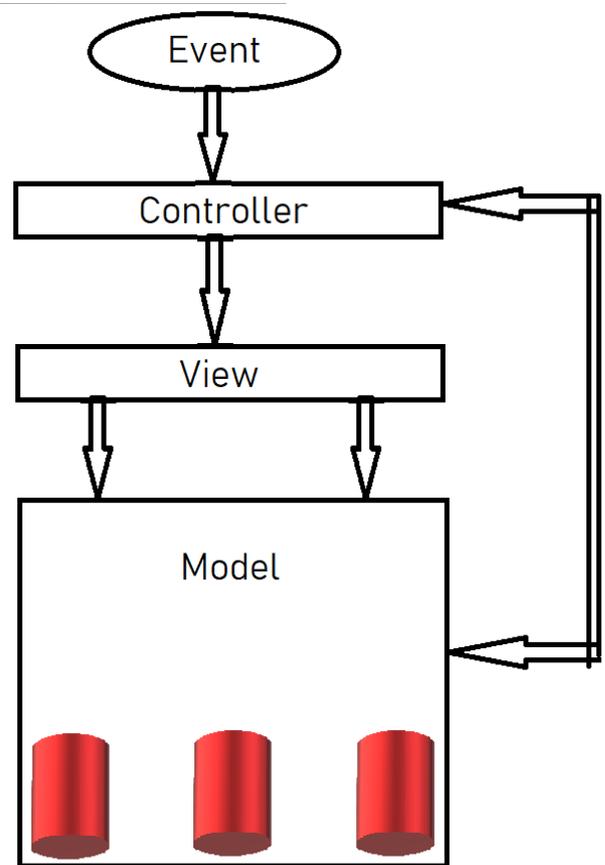
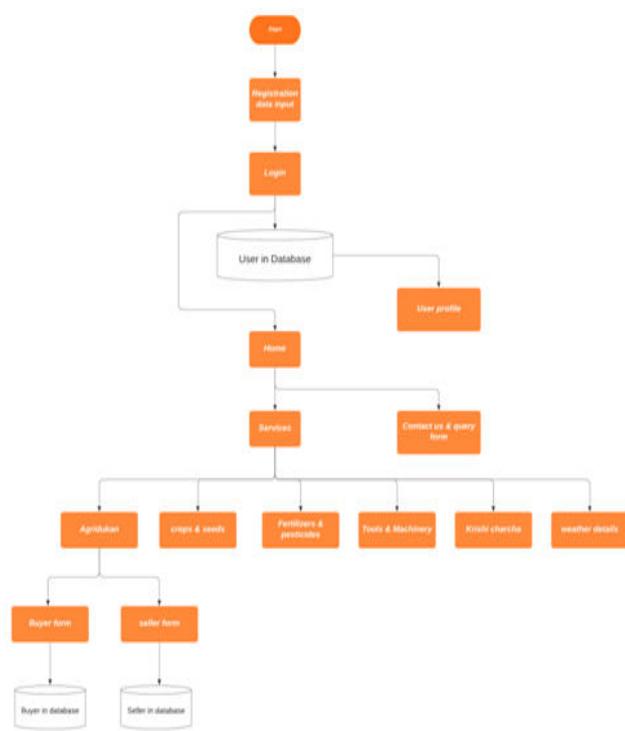
Krishi Yug contains an AI-Chat-bot which enables user to ask any type of questions and it can give answers to it. Here user can also ask questions about website, questions about farming and many more topics.



- **View** – It is responsible for displaying all or a portion of the data to the user.
- **Controller** – It is a software Code that controls the interactions between the Model and View.

MVC is trendy because it remove the application logic from the user interface layer and supports segregation of concerns. The controller obtains all requests for the application and then works with the model to develop any data needed by the view. The view then uses the data developed by the controller to generate a final acceptable response. The MVC abstraction can be graphically represented as follows.

### Block diagram



### Technology Used

#### Angular JS

Model view controller or MVC as it is generally called, is a software design arrangement for establishing web applications. A Model View Controller pattern is made up of the following three parts –

- **Model** – It is the lowest level of the pattern responsible for preserve data.

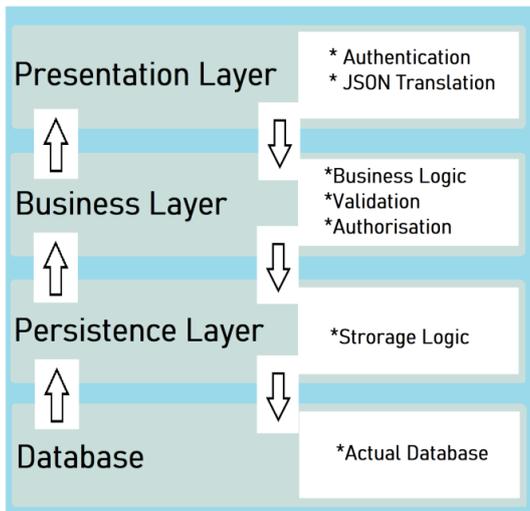
### Spring Boot Architecture

Spring Boot is a module of the Spring Framework. It is used to create stand-alone, production-grade Spring Based Applications with minimum efforts. It is developed on top of the core Spring Framework.

Spring Boot follows a layered architecture in which each layer communicates with the layer directly below or above (hierarchical structure) it.

Before understanding the **Spring Boot Architecture**, we must know the different layers and classes present in it. There are **four** layers in Spring Boot are as follows:

- **Presentation Layer**
- **Business Layer**
- **Persistence Layer**
- **Database Layer**



**Study of Existing System**

There is currently no portal available which have AI Chat-bot + JavaScript Chat-bot and also no option for selling and buying together at same time for the users(farmers). Many of the sites does not have complete information about crops and seeds and does not give proper knowledge about the farming and also about the fertilizers and pesticides to the farmers. And also providing farmers with current weather details so that they can understand crop's requirements.

No.	Existing system/web site/software	Features	Disadvantages	Limitations/Gaps
1.	<a href="https://farmer.gov.in/">https://farmer.gov.in/</a>	1.Map view of agricultural land.	1.No Chat-bot facility	1. Not complete information of

		2.Extreme weather alert, animal husbandry corner, agriculture and horticulture corner	2. No buying & selling feature	seasonal crops, seeds, fertilizers.  2.No user verification  3.No contact us feature
2.	<a href="https://tractor-gyan.com/tractor-industry-news-blogs/793/top-12-agricultural-tools-for-farming-in-india">https://tractor-gyan.com/tractor-industry-news-blogs/793/top-12-agricultural-tools-for-farming-in-india</a>	1.Complete information about tools and machines that are used for farming purpose.	1.No information about crops, seeds and fertilizers.  2.No buying selling options for crops, seeds and fertilizers.	1. No chat-bot facility to listen user's questions.  2.No current weather details option.
3.	<a href="https://wicorn.org/resources/innovations-in-agriculture/">https://wicorn.org/resources/innovations-in-agriculture/pe</a>	1.Complete information about fertilizers and	1. No information about crops, seeds and	1. No chat-bot facility to

	<a href="#">sticides-</a> <a href="#">fertilizers-</a> <a href="#">herbicides/</a>	pesticides and herbicides.	fertilizers .  2.No buying selling options for crops, seeds, fertilizers and pesticide s.	listen user's questio ns.  2.No current weather details option.  3.No contact us or query form availabl e.
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### Our Findings

The main purpose of this project is to overcome all the problems and difficulties that are faced by farmers during farming. We are going to provide all the information related to farming methods and also trying to create portal very user-friendly so that farmers can easily understand the interface and can gain more knowledge about farming as well as they can get solutions of their problems and difficulties they are facing while farming through Chat-bots and also they can contact us by filling the forms. Krishi Yug can help them interact with technology and can be the source of information that they can use anytime.

### Limitation of Work

- We have tried to cover the most number of crops in our portal Krishi Yug but still there are many number of crops are left to cover which can be updated by the time.
- The AI-Chat-bot which we have added in Krishi Yug is not learned on that high level. To make it more accurate

and updated, it will take lot of time and processing.

### CONCLUSION

After the project was developed we derived following conclusions from the project are as follows:

- The portal have user-friendly interface that can be understandable by any farmer.
- In this portal the user will also get information about pesticides and fertilizers so that the user can easily find which fertilizer should be used for their purpose. And also they will be aware about the environmental harms and the micronutrients used in this. And they will also gain the knowledge about the Microbiological Considerations.
- This portal will provide all the information related to all the seasonal crops and seeds and also there varieties and methods to grow them and also the amount of fertilizers (required) to be used for farming.
- Through this portal we would like to interact with the user through forms as well as we would like to solve their queries and the problems they arise while farming.
- The portal also provides Krishi Charcha (Chat-Bot) feature so that the user can ask any query related to farming anytime anywhere.
- The main goal of this portal is providing the feature Agri Dukan for the user so they can sell or buy any product anytime anywhere and the user can also get the reasonable price of its products.
- This project will help each and every farmer anytime everywhere.

### ACKNOWLEDGEMENT

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