Agri – Equipment Rental Application

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Abstract

Agriculture forms the backbone of Indian economy and there is always a need of supporting and improving it . As a part of which some of Indian NGO's are with an initiative of supporting the farmers by facilitating them with the modern agricultural equipment's on rental basis. Modern agricultural equipment's make farmers work more efficient and easier. As a part of which there are some organizations that are set up to help those farmers who are in need of such equipment's, where the organization owns the equipment's and rent those on request of farmers at liable amounts. At present, farmers need to travel to a place to borrow all the essential needs, which is a tiresome and not a cost-effective work. So, a smart digital farming is listed as the highest-ranking technology opportunity in the latest Global Opportunity report in terms of its expected positive impact on society. This paper is on digitizing the process of renting the agricultural equipment's by the farmers .We aim at developing an application that farmers can use to get their equipment's on rent and also check the availability and renting .We also allow them to book the equipment's in advance .It also helps us to get the track of equipment's that are on rent .We also aim at developing analytic for the state heads to make better availability of equipment's and to keep track of the equipment's as well, which could help in providing better support for farmers.

Keywords: *Agriculture, Farmer, Equipment's, Application, Rental.*

I. INTRODUCTION

Modern agricultural equipment's make farmers work more efficient and easy. As a part of which there are some organizations that are set up to help those farmers who are in need of such equipment's, where the organization owns the equipment's and rent those on request of farmers at liable amounts .At present, farmers need to travel to a place to borrow all the essential needs, which is a tiresome and not a cost effective work. So a smart digital farming is listed as the highest ranking technology opportunity in the latest Global Opportunity report in terms of its expected positive impact on society .Agriculture yet forms the backbone of Indian economy and there is always a need of supporting and improving it. As a part of which some of Indian NGO's are with an initiative of supporting the farmers by facilitating them with the modern agricultural equipment's on rental basis . We aim at developing an application that farmers can use to get their equipment's on rent and also check the availability and renting. The weak purchasing power of agricultural machinery is China's current condition, and the cost of large agricultural machinery is very high. Due to the small size of farmland and strong seasonal characteristics of crops in China, it is difficult for farmers who have bought agricultural machinery in a short time to make profits. Agricultural machinery idles for a long time, which is a waste of resources. In addition, the function of Chinese agricultural machinery is singular, and many different types of agricultural machinery are needed in the production of a crop. The role of a single type of agricultural machinery is extremely limited, so farmers are extremely unwise to buy large agricultural machinery. Agricultural machinery rental is a new service form that can lighten the burden of buying agricultural machinery. This service improves the utilization rate of agricultural machinery and promotes the development of the agricultural economy. However, most agricultural machinery rental companies are still in the stage of immediate deployment Staff only

considers the time sequence when the agricultural.

A. Scope of project

II. LITERATURE SURVEY

International Research Journal of Modernization in Engineering Technology and Science March-2023 Authors: Mr. Chetan Ner, Mr. Vishal Hire, Ms. Mansi Salunkhe, Mrs. Bhawana Ahire Agriculture forms the backbone of the Indian economy and there is always a need to support and improve it. As a part of this, some Indian NGOs are an initiative to support the farmers by facilitating them with modern agricultural equipment on a rental basis. Modern agricultural equipment makes farmers work more efficiently and easily. As a part of this, there are some organizations that are set up to help those farmers who are in need of such equipment, where the organization owns the equipment and rents those on request of farmers at liable amounts.

International Research Journal of Engineering and Technology (IRJET) Jun 2022 Authors : CHELLA ASHOK KUMAR1, Dr. M. SARAVANAMUTHU Previously, when a farmer required equipment, he went to a hardware store, where he found all types of equipment. In a hardware store, each piece of equipment will cost more. However, not every farmer has enough money to purchase all of the equipment needed for farming. We are attempting to provide the farmer or user with a solution that allows them to rent AGRICULTURAL EQUIPEMENT RENTAL APPLICATION DR. DAULATRAO AHER COLLAGE OF ENGINEERING, KARAD 3 the goods by the hour. The farmer must create an account on this website. Following that, the farmer or user must enter a username and password.

International Journal Of Creative Research Thoughts(IJCRT) March-2018 Authors : M Nagendra Raju, Dr T Manikumar, Dr N Naveenkumar This paper is based on the idea of hiring equipment. This project has upgraded the E commerce website to close the gap between the farmer and the seller on a lease basis. Before logging into the main application the user must go through the login system to access, only the user can select and book resources. In this paper, it is full and full of data about the products. This paper assists farmers. The main purpose of this website is to manage a series of agricultural machinery including various agricultural machinery such as Harvester, JCB, Tractor, Pickup, Rotor, and more.

International Journal of Scientific Development and Research (IJSDR) Authors: Bhuvan S, Purushottam G.K, Manoj A, Chandan A.M, Chandraprabha K.S Modern agricultural equipment makes farmers work more efficiently and easily. As a part of this, some organizations are set up to help those farmers who are in need of such equipment, where the organization owns the equipment and rents those on request of farmers at liable amounts. At present, farmers need to travel to a place to borrow all their essential needs, which is tiresome and not cost effective work. So smart digital farming is listed as the highest ranking technology opportunity in the latest Global Opportunity report in terms of its expected positive impact on society. Agriculture forms the backbone of the Indian economy and there is always a need for support and improvement.

III. PROPOSED SYSTEM

Farmer login to the application using the username and Password He / She can view the list of machineries ordered in a particular area. They can perform the analytics and sanction the machineries based on the requirements The server at that point reacts by sending information over to the browser. After that activity, the program executes those queries to the client. Presently, the client gets the chance to connect with the site. Obviously, these activities are executed inside a matter of seconds. Application engineering is a lot of advancements and models for the improvement of completely organized portable projects dependent on industry and merchant explicit gauges. As you build up the design of your application, you likewise consider programs that deal with remote gadgets, for example, cell phones

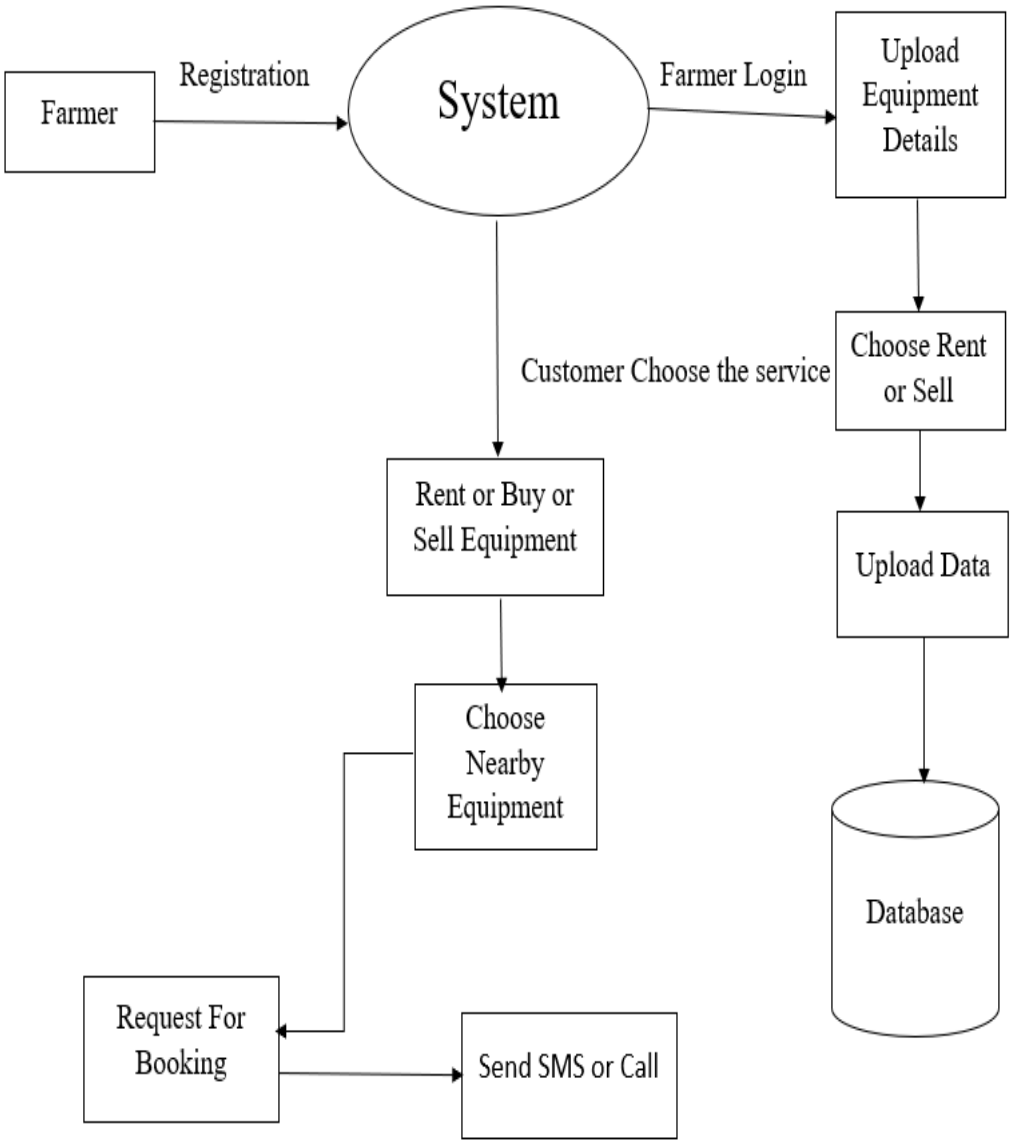

Fig.1.Block diagram of proposed system

and tablets. Mobile app architecture design usually consists of multiple layers, including: Presentation Layer - contains UI components as well as the components processing them. Business Layer - composed of workflows, business entities and components. Data layer - comprises data utilities, data access components and service agents This application

comprises mainly of two parts: Front End: This part is responsible for interacting or conveying among the students and faculty of the same department. Back End: This part is mainly responsible for the storage purpose. Oracle database is used for uploading or downloading data into or from back end using queries from front end respectively. Detailed overview of Front End The front end is based on Java platform where farmers can book the required machinery can be booked for a certain period of time. Farmers has to register themselves by providing their Name, Mobile number .Upon registering successfully , each one of them will provided with an Id which will be useful for the further process. While registering, if a particular farmer is already registered with a mobile number, then an error message popup saying - this mobile number is already registered. Once successfully registered, farmers can login through their given Id and can choose the machine they want and can change their password also. Farmers can request the machinery, if it is not available at the center, by filling details in the portal. They will log out at the end.

- We aim at developing an application that farmers can use to get their equipment's on rent and also check the availability.
- It reduces the cost of visiting the nodal center's to check the availability and renting.
- We also allow them to book the equipment's in advance.
- It also helps us to get the track of equipment's that are on rent
- We also aim at developing analytic for the state heads to make better availability of equipment's an to keep track of the equipment's as well which could help in providing better support for farmers

IV. EXPECTED OUTCOMES

1. Increased Access to Equipment: Farmers gain access to a wider range of farming equipment, including tractors, plows, harvesters, and more, without the financial burden of purchasing these machines outright.

2. Cost Savings for Farmers: Renting equipment is often more cost-effective than buying, as it eliminates the need for large capital investments, maintenance, and storage costs.

3. Improved Efficiency: Farmers can select the right equipment for their specific needs and use it when necessary, improving the overall efficiency of their operations.

V. IMPLEMENTATION DETAILS

The system is divided into three main modules, each of which has the following sub-modules:

Log In Form:

By using registration details contact and password, they can log in to our system.

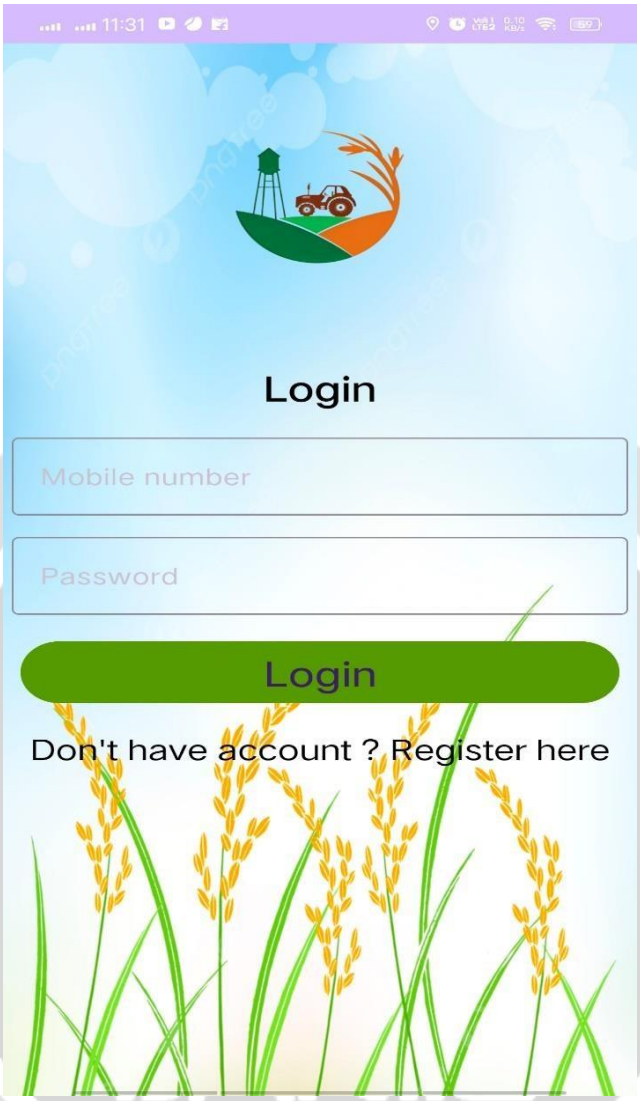

Fig. 2 Login Form

Registration form :

Here we Implement a system for a farmer to save their data on database securely without deduplicate to get save information of user.

So, Here we created registration form for farmers. By entering Their personal information like their name contacts, Emai, Address, Password. They can register themselves on our system.

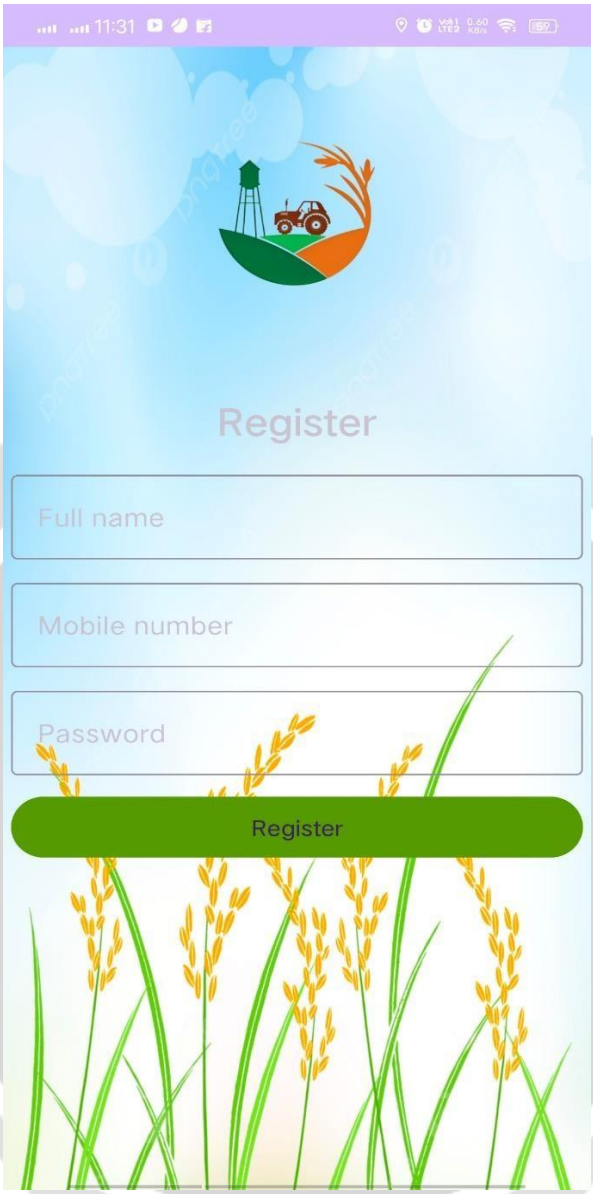

Fig. 3 Registration form

Homepage :

By adding correct information to log in page they can access the homepage of our system where they get information of equipment's.

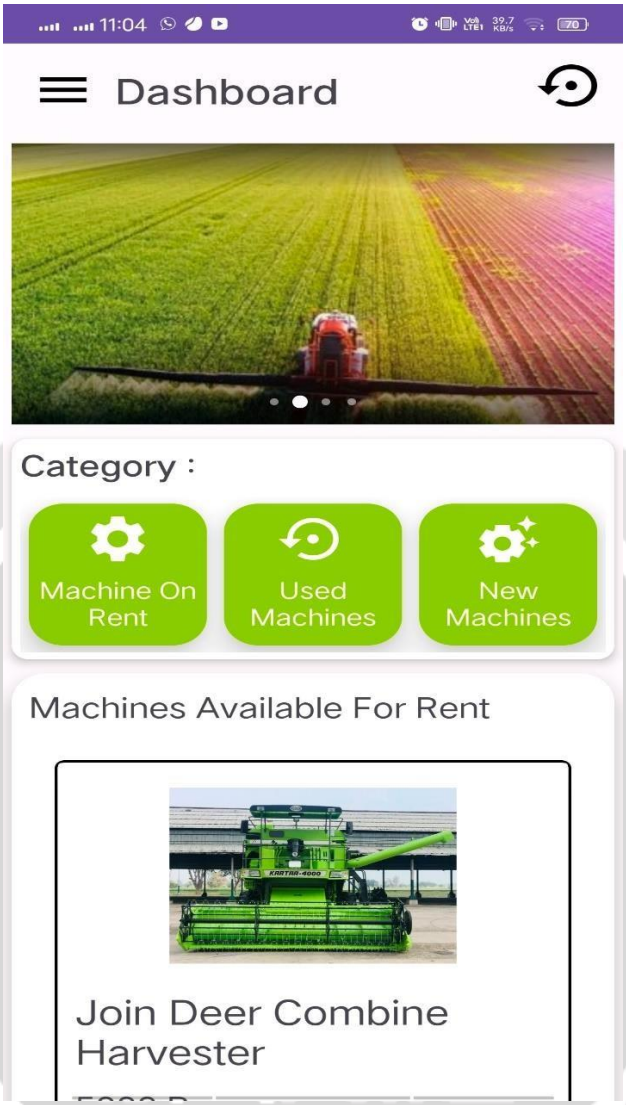

Fig. 4 Home Page

VI. CONCLUSION

The online administration framework for Agri-Equipment rental framework was made to guarantee the productive task and straightforward administration of a government-upheld farming hardware rental business It reduces the manual work . It reduces the paper work, thus supporting the sustainable environment. It saves time also. Moreover, the proper documentation of whole project is also provided so that any-one can understand the project and can do the necessary changes if required. This application can be improved in many ways and can be extended to support multiple devices. The online administration framework for Agri-Equipment rental framework was made to guarantee the productive task and straightforward administration of a government-upheld farming hardware rental business It reduces the manual work. It reduces the paper work, thus supporting the sustainable environment. It saves time also. Moreover, the proper documentation of whole project is also provided so that any-one can understand the project and can do the necessary changes if required. This application can be improved in many ways and can be extended to support multiple devices. Following are some of the possible extensions: Analytics can be extended in

such away that State head can view, in which region which machinery is required and move to that location in prior. Inclusion of crops and fertilizers to the list. Inclusion of GPS and maps which can help in identifying the current locomotion state of the equipment.

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