

Acropolis Institute of Technology and Research, Indore

Department of Computer Science and Engineering

Krishi Yug

INTRODUCTION

Agriculture forms the backbone of the Indian economy and there is always a need to support and improve this domain, which includes some Indian NGOs with an initiative to support farmers by facilitating modern agricultural machinery on a rental basis along with rental storage facilities. Modern agricultural technology allows farmers to work more efficiently and easily it includes some organizations that are set up to help farmers who need such equipment, where the organization owns the equipment and rents it at the request of farmers for mandatory amounts. Currently, farmers have to travel to the site to borrow all the essentials, which is tedious and cost-inefficient work. Thus, Smart Digital Farming is listed as the top-rated technology opportunity in the latest Global Opportunity expected positive impact on society.

OBJECTIVE

- Our goal is to develop a Website that farmers can use to avail rental equipments and also check availability of storage centers for crops.
- It reduces the cost of visiting hubs to check availability storage centers and rental equipment.
- We also allow them to book equipment and storage centers in advance.
- It also helps us to get an overview of the equipment that is rented.
- We also aim to ensure better equipment availability and equipment health monitoring which could also help in providing better support to farmers 24X7.

The objective of rental equipment for farmers is to provide farmers with access to specialized equipment they need, when they need it, without the financial burden of owning it. This allows farmers to save money, increase efficiency, and improve their overall farming operations. Additionally, rental equipment helps farmers stay competitive by allowing them to test out new technology and equipment before committing to a purchase, and it offers a flexible solution for those who may have seasonal or irregular equipment needs. The overall goal is to help farmers achieve their farming objectives while reducing costs and increasing profitability.

METHODOLOGY

The methodology for the rental equipment and storage facilities for farmers project can follow these steps:

- Requirements gathering:** Gather requirements from farmers, suppliers, and other stakeholders to ensure that the system meets their needs and expectations.
- System design:** Design the system architecture and components, including the equipment and storage facility database, recommendation system, user profiles, inventory management, and online marketplace.
- Data collection and analysis:** Collect and analyze data on equipment and storage facility usage and demand, as well as farmers' needs and preferences, to inform the development of the recommendation system.
- Development and testing:** Develop and test the various components of the system, including the database, recommendation system, user profiles, inventory management, and online marketplace.
- Deployment:** Deploy the system and make it available to farmers and suppliers.
- User acceptance testing:** Conduct user acceptance testing to ensure that the system meets the needs and expectations of farmers and suppliers.

Ongoing maintenance and improvement:

Monitor the system and perform ongoing maintenance and improvement to ensure that it remains relevant and effective in meeting the changing needs of farmers and suppliers. The methodology will be designed to ensure that the rental equipment and storage facilities for farmers project is delivered on time, within budget, and with high-quality results that meet the needs and expectations of all stakeholders.

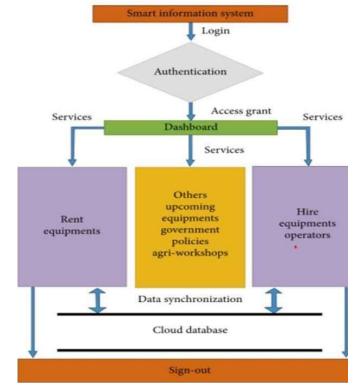


Fig.1 SYSTEM ARCHITECTURE [3]



Fig.2 USE CASE DIAGRAM

EXPECTED OUTCOME

The expected outcome from the rental equipment and storage facilities for farmers project is:

- Increased access to equipment and storage facilities:** Farmers will have access to a wide range of equipment and storage facilities that are tailored to their needs and preferences, helping them to grow and succeed in their operations.
- Improved efficiency and cost savings:** Farmers will be able to access equipment and storage facilities more efficiently, reducing their costs and improving their bottom line.
- Increased flexibility:** Farmers will have greater flexibility to adjust their equipment and storage needs as their operations change, allowing them to be more responsive to market conditions and customer needs.
- Better data management and insights:** Farmers will be able to track their equipment and storage usage, as well as their costs, providing them with valuable data and insights to inform their decision-making.
- Enhanced supplier management:** Suppliers will be able to manage their equipment and storage facility listings more effectively, improving their ability to reach and serve farmers.
- Improved customer experience:** Farmers will benefit from a more user-friendly and convenient online marketplace, improving their overall customer experience.
- Increased adoption and usage of the system:** The system will be widely adopted by farmers and suppliers, helping to drive increased usage and effectiveness over time.

Overall, the rental equipment and storage facilities for farmers project will help farmers to grow and succeed in their operations, while improving the overall efficiency and effectiveness of the equipment and storage rental industry.

CONCLUSION

In conclusion, the rental equipment and storage facilities for farmers project is a promising initiative that has the potential to bring significant benefits to farmers, suppliers, and the agriculture industry as a whole. By providing farmers with increased access to equipment and storage facilities, as well as improved efficiency and cost savings, the project will help farmers to grow and succeed in their operations. Additionally, by improving supplier management and enhancing the customer experience, the project will help to drive increased adoption and usage of the system over time. While the project may face challenges and limitations, including time and budget constraints, user adoption, and market conditions, careful planning and management will be key to ensuring its success.

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CONTACT

Aanya Chourasiya-0827CS201003
Abhay Gour -0827CS201009
Ankur Nagar - 0827CS201035
Aayushi Jain - 0827CS201007