FARM EQUIPMENT RENTAL SYSTEM

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ABSTRACT

Here, we developed E-commerce website to bridge gap between vender and farmer. We are trying to provide service like take required equipment from vender on rent basis. As information concerning farm related equipment are not affordable to all farmer. The main objective of this website is to manage a fleet of agricultural machinery including various farming equipment such as harvester, JCB, Tractor, Pickup, rotor and so on. This proposed system is user friendly for end user. The objective of website is to deliver the online farm related equipment through web platform. It helps buying the equipment in the shop anywhere through internet through Laptop and Computer. Users can enjoy the shopping from anywhere. It stores all information such as Customers record keeping, user just have to enter the primary information about a user and his/her account. Thus, our website is highly integrated. It also has an easy to use interface for farmer and vender. The website allows vender and farmer for updating their previous provided information. C# was used to create the front end for system and SQL server was used for the back end.

Keywords: E-Commerce, Service, equipment etc.

1. INTRODUCTION

In today's world, every Farmer won't have that much bank balance to buy each and every farming equipment. The innovation is fast to the point that anybody can do anything by simply sitting in a room. So, it is an imperative issue as per observation. In the event that any farmer wishes to take equipment on rent and view equipment information, they can purchase online with the assistance of web. If any new farmer wants to do farming, he doesn't know about the farming equipment as per this concern this website is implemented. The system can access by any person no special training is needed to handle this. In this system we are providing main two domains like vender and farmer. These domains are managed by administrator.

Every farmer does not have sufficient money to buy every equipment which is required for farming. So, here we are trying to provide service to farmer or user that they can take equipment on rent per hour basis. Comprehensive services that deliver equipment's when and where needed, with minimum waste of resources. Our website has a facility to give a unique id for each and every farmer and also for vender and also registered equipment also.

System can also provide online payment facility for pay rent of that specific equipment by using online payment applications such as Paytm, Google Pay. This system also provides facility like when any farmer wants to take any equipment on rent then that request is sends to admin window then admin manage that request manually and reply of that specific vender is send to that requested farmer. All the information of vender, farmer and also the each and every registered equipment is manually accessed by authorized admin. Because of this authorized access the registered information is in safe zone. Mainly security is providing to registered data no any unauthorized person can access any other

person information. This system can also help to reduce the demand of labours which are required for efficient farming.

Problem Statement

Every farmer does not have sufficient money to buy every equipment which will require for the farming. So, here we are trying to provide service to the farmer or user that farmers can buy equipment's on per hour rent basis. Comprehensive services that deliver equipment's, when and where needed, with minimum waste of resources. Our software has the facility to give a unique id for every product and users. The details of every product and the user will store on database automatically.

Proposed system

The Farm Equipment Rental System website is user-friendly website. The main objectives of the system which shows and helps you to farmer for buying equipment's on rent basis, rent can be on hour basis. So, farmer or vender does not need to buy every equipment which they required. The design and implement of the system is simple. The system needs very low system resources and the system will work in almost all configurations.
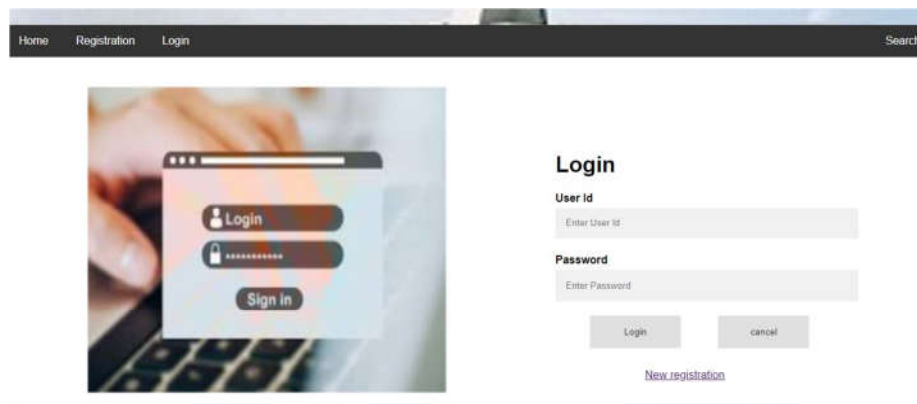

Figure 1. Home Page

2. RESEARCH METHODOLOGY

The proposed application is implemented using HTML, C# and MYSQL workbench. The application was tested on DOT NET web browser to determine the functionality. The existing e-commerce website provide the features of a sophisticated add to cart, on-site wish list. This paper proposes an e-commerce shopping application to rent an equipment and promote only the Indian products.

2.1 Modular Design

The functionality of the proposed application is divided into sub modules. The modules to be taken into account are equipment add to cart, orders, payment and equipment module. These modules while combines together give the functionality desired output of the application.

- Farmer

In this module the farmer information is processed. This information includes giving username and

password to login to this site. This is required to verify the user. The registered number of the customer is used to confirm the farmer's orders and also to send promotional number. Farmer can also do payment on online mode by using online payment application like Paytm, Google Pay.

- Vender

In this module the vender information is processed. This information includes giving username and password to login to this site. This is required to verify the user. The contact number of the vender is used to confirm the vender's registered equipment and also to send promotional number. Vender can also see their registered equipment when they login on their account using their user id and password.

2.2. Add to Cart

This sub-module lets the farmer to select the items that they intend to take on rent to store in cart before placing the order. The items can be stored into the cart and it can be deleted from the cart.
Order
In this module farmer order is processed. The user can place the order for the equipment they want to take on rent. It verifies the pin code and it confirms the order to delivered place. At the given address the equipment should be delivered.

2.3. Payment

In this sub module payment options for the order is given and processed. Payment would be through credit card, debit card or cash on delivery. The total charges of the equipment are the sum of cost of the product and delivery charges will be deducted from the user's account in case of payment options other than cash on delivery.

2.4. Equipment

In this module Equipment details can be added to the database. The late charges and actual price of the equipment can be added. The equipment details can be edited. The equipment is stored as per category. Arrangement of equipment into categories enables the user to search the Equipment based on its category. The database is normalized so that the redundancy is minimized.

3. DEVELOPMENT TOOLS

The entire development process has been subdivided into two: the front-end development and the backend development. The front end comprises of the visually visible parts such as the home page, admin panel, contact page, About us page, vender and farmer panel. The back end contains the database and its interaction with the front-end.

- **Front End Development:**

The front end was initially raw coded using HTML and CSS. Hypertext mark-up language is the language used to design the web pages of an application. A static page is an HTML document that is stored on the web server and does not change. This was performed by Cascading Style Sheet (CSS). CSS is a style sheet language which describes the look and formatting a document. These CSS files are linked with the class files with .php extensions to put the panels in order, the text with correct font, size and color.
For example, in website for the framer's registration, the system asks to provide their details which contains their name, contact number, age, etc. If they missed any of the details, then immediately the browser asks them to fill the particular field. This is implemented and handled by a HTML and CSS.

- **Backend Development**:

The Database Management System provides support for the back end. The database management system is essentially software where admin can create the database, add, drop, alter and update tables. The tables can hold different types of data for example: integer, variable characters etc. in our application we have chosen the MySQL DBMS to hold the database. MySQL is a relational database management system. The main reason is MySQL development project has made its source code available under the terms of the General Public License (GNU) which is an open source web application.

- **Database Design:**

One of the most important and challenging tasks is the database design. The information passed by the vender or farmer while registering in the website is stored in the database. The products with their identification, description and image is stored in the database. Moreover, if admin update any of the featured products then update takes place in the database. So, the program has a lot to do with the database.
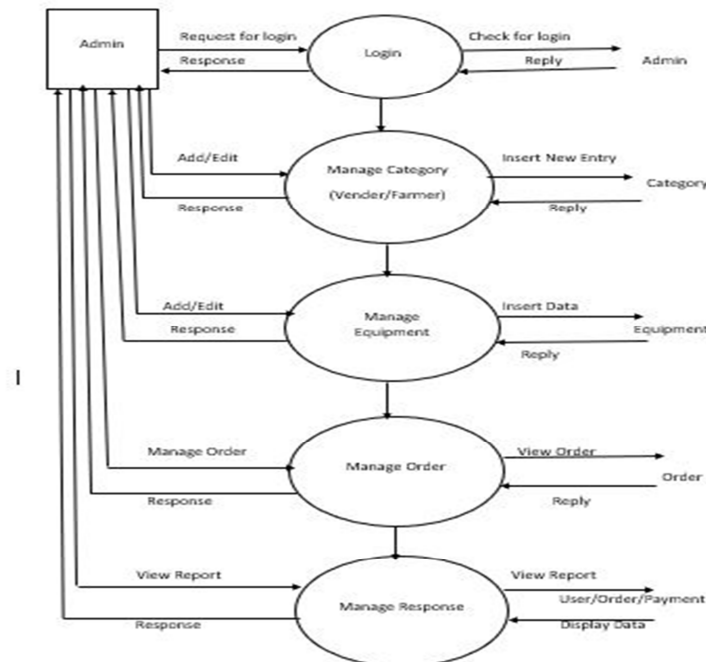
Figure 2: - System Architecture of Admin

4. ADVANTAGES OF PROOSED SYSTEM

- Security of data.
- Ensure data accuracy.
- Reduces the damages of the labour.
- Greater efficiency.
- User friendly and interactive.
- Minimum time required.

Figure 3. Registration Page (for Vender/Farmer)

Figure 4. Farmer Home Page

Figure 5. Feedback

5. CONCLUSION

World Wide Web has become a major resource in modern business it gives new opportunities to business. The website is attractive, provides easy navigation, multiple options in terms of brands, category and capacity the farmer would stay on the site. This paper provides an easier design to implement the website and this system not only provides easy navigation but also it can increase the profitability and reduce time, efforts of farmer and make sure that all important information are able to use in future use. Hence the proposed system has following features.

- Multiple add to carts can be provided per user.
- A desktop-based application for the website can be developed.
- Payment through Paytm could be made possible.
- Send SMS to the users on registered mobile number.

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