Cloud Based E-Rent System

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Abstract: Online reservations give many benefits to users. Rental system also known as hiring, is an agreement where a payment is made for the temporary use of a goods owned by another. It is more convenient and beneficial than paying the cost of owning and maintaining the goods. The number of agencies or companies provides their products or items to the customers on rent for specified period of time. If it is required then can be extended by the rental shopee. It was so difficult to search the rental shop to get the required thing on rent basis when renting system was manual. It was also not necessary that needed things were also available for every customer. To solve this problems, we are designing a system in which all needed things which the user or customer cannot purchase, will be made online and on lease basis. This system is called as online rental system. The rental system primarily serves people who needs product for temporary use.

Keywords: Rental system, goods, hiring.

I. INTRODUCTION

Now days, people are using internet as one of the basic need. Online is the new big thing. Everything from a small pin to large home furnishings item is available online for the transaction. People can buy everything they want easily. Buying things online is beneficial in so many ways. First of all it saves time, it is convenient. Shopping online gives you freedom to shop from anywhere throughout the country. All the brands are available, no location barriers, various options. The main idea for this paper is to give such a platform for the vendor where they can put up their shops and deal with customers according to themselves. The idea of Cloud Computing simplifies many network connections and computer systems involved in online services. Users with an Internet connection can access the cloud and the services it provides Cloud Computing includes:

- Online backup,
- Social services,
- Personal data services,
- Online applications,
- Hardware services

A. Cloud Computing

Cloud computing is a type of Internet-based computing that provides shared computer processing resources and data to computers and other devices on demand. It is a model for enabling ubiquitous, on-demand access to a shared pool of configurable computing resources (e.g., computer networks, servers, storage, applications and services), which can be rapidly provisioned and released with minimal management effort. Cloud computing and storage solutions provide users and enterprises with various capabilities to store and process their data in either privately owned, or third-party data centers that may be located far from the user–ranging in distance from across a city to across the world. Cloud computing relies on sharing of resources to achieve coherence and economy of scale, similar to a utility over an electricity network. Cloud computing is a recently evolved Computing terminology based on utility and consumption of computing resources. Cloud computing is the delivery of computing services over the internet. Cloud services allow both individual and businesses to use software and hardware managed by third party which are present at remote location. The cloud computing allows accessing to information and computer resources from any remote location where network connection is available. Cloud can be private, public or hybrid.

A private cloud is a virtual data centre that operates with in a firewall. Private clouds are highly conceptualized, joined together by large number of IT infrastructure into resource pools and privately owned and managed. A public cloud is cloud model in which services, like application and data storage are generally used over the internet. Public cloud services has pay-per-usage mode, typically by the minute or the hour. Leading public cloud provider include Amazon Web Services (AWS), Microsoft azure, IBM/Soft Layer and Google compute engine. Hybrid cloud is a combination of public cloud services and private cloud. The aim of hybrid cloud is to create a single, automated, scalable environment which can take all the advantages of a public cloud infrastructure.
provides.
The cloud services models are Software as a Service (SaaS), Platform as a Service (PaaS) And Infrastructure as a Service (IaaS). In Software as a Service mode, a pre-made application, along with any required hardware, software, network and operating system are provide. In PaaS model the customer are provided with an operating system, network and hardware and they install or develop their own applications. The IaaS model just provide network and hardware and the customer installs or develops its own operating system, applications and software. The idea of Cloud Computing simplifies many network connections and computer systems involved in online services. Users with an Internet connection can access the cloud and the services it provides Cloud Computing includes online backup, social services, personal data services, online applications, hardware services, mirrored websites. In this paper cloud is used to store data which is used for rent.

B. Rental System
A rental system is the system that rents assets for required period of time, generally renting from few hours to few weeks and primarily located busy city areas and often complimented by a website allowing online services. Rental system is where a fixed number of heterogeneous users rent one product at a time from a collection of reusable products. A rental durations of each user are independent and identically distributed with finite mean. The study of transient behaviour in this system following the introduction of a new product that is desired by all the users. They represent the usage process for the new product in terms of an empirical distribution [1]. The main idea is to give such a platform for the vendor where they can put up their shops and deal with customers according to themselves. The website or the framework provider will act just as a platform for customers to act with the shopkeepers [2]. Understanding shifts in consumer behaviour gives insights into the demands of the market. Knowing these things enables marketers to drop certain products or make strategic changes in pricing that will result in big gains or, at the very least, limit damage to profits [3].

There are many possible reasons for renting instead of buying:
1) In many jurisdictions rent used in a trade or business is tax deductible, whereas rent on a dwelling is not tax deductible in most jurisdictions.
2) Financial inadequacy, such as renting a house when one is unable to buy it. One may not wish to pay the full price that ownership would need, allowing for smaller payments over a specified period of time.
3) Reducing financial risk due to depreciation and transaction costs, which might be needed only for a short amount of time.
4) When something is needed that may or may not be already owned but is not in proximity for use, such as renting an automobile or bicycle when away on a trip.
6) Needing a cheaper alternative to buying, such as renting a movie: a person is unwilling to pay the full price for a movie, so they rent it for a lesser price, but give up the chance to view it again later.
7) Renting is good for the environment if products are used more efficiently by maximizing utility rather than being disposed , overproduced and underutilized.

II. METHODOLOGY USED
Sales Force technology has been used for implementation. Following facilities are provided by Sales Force technology:
A. Customer service software and support
B. CRM and cloud computing to grow our business
C. Help Desk Software, Customer service for Small enterprises
D. Maintenance Free
E. Access Anywhere
F. Better Security
G. Fast Implementation

Implementation is divided into three modules. First module is registration form in which the user will register. The second module is admin side product registration. The third module is cart management.
III. RESULTS AND DISCUSSION

A. Customer Registration Form

Customer fills their details in registration form. The details like full name, email id, contact number, address with pin code, id-proof, etc. The first step in the system is to register the user. After registration process the user can login into the system and can use it.

![Registration Process](image1)

**Figure 1: Registration Process**

**Figure 2: Customer Login**

**Figure 3: Registration to new user**
B. Admin Side Product Registration

In this module admin can add new products with details, update the products, delete the details of all the products and its current offer in products like list of products with low cost, how customers can easily get the product on rent and also can give feedback.

![Diagram](image)

**Figure 4: Product Registration**

![Product list](image)

**Figure 5: Product list**

![Product details at Customer Side](image)

**Figure 6: Product details at Customer Side**
Figure 7: Adding new Product

Figure 8: Users Detail at admin side

Figure 9: Users detail at Admin
Figure 10: Transaction list at admin

Figure 11: Products Categories

Figure 12: User update process
C. Cart Management

This module helps customers regarding bill details, to get details about their shopping products, current offers on individual product. This module also performs some arithmetic operations for calculating bills.

Figure 13: Cart Management

Figure 14: Cart contents

Figure 15: Transaction details
Online rental system provides advantages to both customers as well as Rental Company to efficiently and effectively manage the business and satisfy customers need at the click of a button. Online rental system provides good business platform for organization and company owners. For customers it is a very good service. So the rent process become online through this concept and it make available various rental products online. It saves time of customer for searching product store and sorting billing problem easily.

REFERENCES
