

CLOUD COMPUTING CUSTOMER RELATIONSHIP MANAGEMENT FOR ONLINE RENTAL SYSTEM

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Abstract - Now a day's, there are online reservation which gives much benefit to user. A rental service is a service in which costumer arrive to request the hire of a rental unit. It is more convenient and beneficial than carrying the cost of owning and maintaining the unit. The number of agency of company, they gives our product or item to a customer on rent for few hours, one or two day's or a week. It is an extended from of a rental shop. In India, the all record are most of time maintain manually and individually. There were several problem occurring to searching the rental shop and it is not necessary to always the needed thing is available in it. The solution come out on solving the various problem that always occur on customer The rental agency primarily serve people who needs product for temporary use. The rental system provides complete functionality of listing and booking the product. For example, customer need dance costume for an hour, so they will not able to purchase these costume for an hour, that time the rental system are play important role.

Key Words: Cloud computing, rental system, e-Rent, shopping, online rental system, rent service, short time access product, Customer Relationship Management, Software as a Service.

1.INTRODUCTION –

Now a day's, 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 items are available online for the transaction. People are having easy to buy everything they want. 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 website or the framework provider will act just as a platform for customers to act with the shopkeepers.

1.1. Customer Relationship Management Service provided by the Sales Force Automation

One of the key issues is to maintain a solid relationship with the client and meet their expectations. Information systems like Customer Relationship Management [CRM] enable to quickly increase productivity and are a wise investment for any business. Customer Relationship Management systems support companies for tracking, organizing and analyzing all the communication that is made with current and potential customers. CRM allows SMEs to improve the way to market products or services to customers and establish relationships with customers that will have longevity and profitability. CRM helps businesses to maintain customer information such as purchase trends, determine what and when products sell. The most popular CRM features are used for this project is Sales Force Automation.

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 (e.g.):

- ☑online backup,
- social services,
- personal data services,
- online applications,
- hardware services,
- mirrored websites.

1.2. Rental System

A rental system is the system that rents assets for short period of time, generally renting from a few hours to a few weeks and primarily located busy city areas and often complimented by a web side 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.

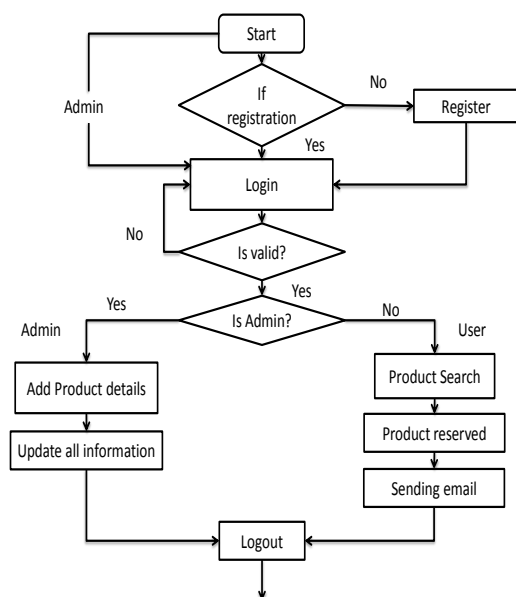
They represent the usage process for the new product in terms of an empirical distribution[1]. The main idea is to give such a platform for the vendor where they can put up their shops and deal with customers according to themselves. The website or the framework provider will act just as a platform for 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].

1.2.1 Proposed plan

In this proposed system, it has two important actors are; administrator and customers. Here discussing that two actor's benefits and work flow. There has three modules :

1.2.2. MODULES

- **Customer Registration :** Customer can fill their details in this registration form such as full name , email , contact number , address with pin code , id-proof , id-proof number , etc.
- **Product Registration :** This module basically include the details of all the products and its current offer such as , information of available products, booking of product, how customers can easily get the product on rent and also can give feedback.
- **Cart Management :** This module helps to customers to get details about their shopping products, current offers on individual product, and their total billing details. This module also works on arithmetic operations for billing task.



3. Implementation

We used Sales Force technology for implementing these project. Sales Force gives many facilities [e.g.]:

- costumer service software and support
- CRM and cloud computing to grow our business
- Help Desk Software, Customer service for small enterprises
- Maintenance Free
- Access Anywhere
- Better Security
- Fast Implementation

3.1. Admin modules implementation / representation :

At Admin site, The sales force technology provide the domain to create the mobile application as well as mapping all models with each other and managed the data base of product , users and transaction on cloud.

3.1.1. List view of product at the administrator site which gives the detail with **Product ID| Category| Description| image link| MRP| Name| Quantity| Rent per day .**

Action	Product Number	Category	Description	Image URL	MRP	Name	Quantity	Rent Per day
Edit Del	E-000003	Books	It is already checked. This book has been.	http://www.amazon.in	\$600.00	BSNL JTO	12	\$110.00
Edit Del	E-000004	Books	uses for engineer's	http://www.amazon.in	\$300.00	civil engineering	10	\$50.00
Edit Del	E-000005	Books	As pr the official ne.	http://www.amazon.in	\$800.00	SBI PO EXAM	4	\$80.00
Edit Del	E-000006	Books	Quantitative aptitud.	http://it.bp.blogspot	\$600.00	Quantitative Aptit.	10	\$20.00
Edit Del	E-000007	Books	The most details re.	http://studydrive	\$1,000.00	SSC combined Gra.	5	\$90.00
Edit Del	E-000011	Accessories	Ball And 4s Pre	http://www.amazon	\$5,000.00	Ball projector	8	\$500.00
Edit Del	E-000012	Clothes	Three color awa.	http://www.amazon	\$2,750.00	Lampshade saree	2	\$200.00
Edit Del	E-000013	Clothes	10 color	http://www.amazon	\$5,500.00	karpuram saree	20	\$150.00
Edit Del	E-000014	Clothes	New material	http://ethnabazaar	\$2,249.00	Falguni Saree	9	\$100.00
Edit Del	E-000015	Clothes	Most Demanded se.	http://3.bp.blogspot	\$3,880.00	Navratri	4	\$120.00
Edit Del	E-000016	Accessories	A printer is a device	http://3.bp.blogspot	\$5,000.00	Printer	8	\$200.00
Edit Del	E-000017	Clothes	Three Color Yellow	http://www.amazon	\$2,993.00	kolkata cotton sarees	3	\$80.00
Edit Del	E-000018	Clothes	Only three colors s.	http://www.amazon	\$4,640.00	lehengas	3	\$170.00
Edit Del	E-000019	Clothes	Nice Quality	http://theartofstyle	\$5,000.00	Wedding suits for M.	10	\$200.00
Edit Del	E-000020	Clothes	Three color availa.	http://www.amazon	\$2,050.00	One Piece dress	3	\$15.00
Edit Del	E-000021	Clothes	Brand New	http://www.amazon	\$2,050.00	Costs	14	\$130.00

Fig 1.1 Product list

3.1.2. Details of each product separately at admin site.

Product Number	Name	Category	Description	Image URL	MRP	Owner	Rent Per day	Quantity
P-000016	Printer	Accessories	A printer is a device that accepts text and graphic output from a computer and transfers the information to paper.	http://3.bp.blogspot.com/2012/09/17/9/07-AM	\$5,000.00	Demo Salesforce (Change)	\$200.00	8

Fig 1.2. Product details at Customer Site

3.1.3. Adding a new product details with **Product name| Category| Image url |description| MRP| Rent per day| quantity.**

Fig 1.3. Adding new Product

3.1.4. List view of user transaction details which given detail with **Username| Password| Name| Phone No.| Email| User Number.**

Action	Username	Password	Name	Phone	Email	User Number
Edit Del	asmila lohhande	asmil12345	asmila	(976) 691-0795	asmilalohhande123@gmail.com	U-0000010
Edit Del	Devyani Kandalakar	dev@123	Devyani	(997) 045-4810	devyani@gmail.com	U-0000012
Edit Del	hemant	12345	Hemant		hemant@123.com	U-0000006
Edit Del	madhu	Madhu@123	madhu	(987) 654-3210	madhu@gmail.com	U-0000011
Edit Del	Payal Ramteke	Payal@123	Payal	(987) 654-3210	payal@123@gmail.com	U-0000015
Edit Del	Rajni Lohhande	rajni@123	rajni	(987) 654-3210	rajni123@gmail.com	U-0000014
Edit Del	Rakhi	svrat123	Rakhi Dhengre	(986) 020-2889	rakhidhengre@gmail.com	U-0000013
Edit Del	Shehal	S123	Shehata R. Golam	(818) 086-9531	shehalgolam123@gmail.com	U-0000008
Edit Del	svati	Svati12345	Svati	(705) 891-1996	svatidhengre@gmail.com	U-0000007
Edit Del	sweetly suite	sweetly	sweetly	987654321	sweetly@gmail.com	U-0000009
Edit Del	yash	1234	yash agarwal	+919838125901	yash@yash.com	U-0000001

Fig 1.4. User's Detail at admin site

3.1.5. Details of each users at Admin site.

Fig 1.5. Each User's detail at Admin site

3.1.6. View All transaction at admin site.

Action	Transaction Number	Shipping Address
Edit Del	T-000000002	Dharampeth, Nagpur
Edit Del	T-000000003	Nardamrain, Nagpur
Edit Del	T-000000004	Ramdas Peth, Nagpur
Edit Del	T-000000005	manevada, nagpur
Edit Del	T-000000006	manevada
Edit Del	T-000000007	manevada
Edit Del	T-000000008	Sakardara, Nagpur
Edit Del	T-000000009	Friends colony, Nagpur
Edit Del	T-000000010	Raw Nagar, Nagpur
Edit Del	T-000000011	Hingna, Nagpur
Edit Del	T-000000012	civil lines
Edit Del	T-000000014	Bhagawan Nagar, Nagpur

Fig 1.6. Transaction list at admin site

3.2. Customer modules implementation / representation :

At user site, users use the application is made by the particular admin with the all access of data i.e. viewing the product details, add to cart and see the all transaction of them.

3.2.1. Login page which shows the user id and password

Fig 2.1. Customer Login.

3.2.2. If user are not register then they fill the registration form with personal details.

Fig 2.2. Registration to new user

3.2.3. User can search product with their category .

Name	Category	Description	MRP	Rent Per Day
SAC Combined Graduate level	Books	The most details review of best books for SSC, CGL, ... How covered all Tier 1 sections and solve papers	\$1,900.00	\$90.00
SBI PO/CLERK	Books	As per the official news SBI has changed the pattern of job so most aware according to new pattern. User for banking examination	\$600.00	\$60.00
Quantitative Aptitude	Books	Quantitative aptitude by R.S. Agarwal is the most popular and bestselling books used for every competitive exam.	\$600.00	\$20.00
BSNL JTO	Books	It's already checked. This book has been used for applicants preparing for BSNL Junior Engineer Recruitment	\$600.00	\$110.00
Civil Engineering	Books	uses for engineer students. all contents are are usable. Drawing with all the varied aspect of civil engineering.	\$300.00	\$50.00
tees	Clothes	three color available	\$500.00	\$20.00
Collar	Accessories	Good Quality with different sizes	\$3,000.00	\$10.00
		Display Size 8 inch		

Fig 2.3. Number of category available with product details.

3.2.4. User can update and modify our personal information Like, shipping address, Contact Number, etc.

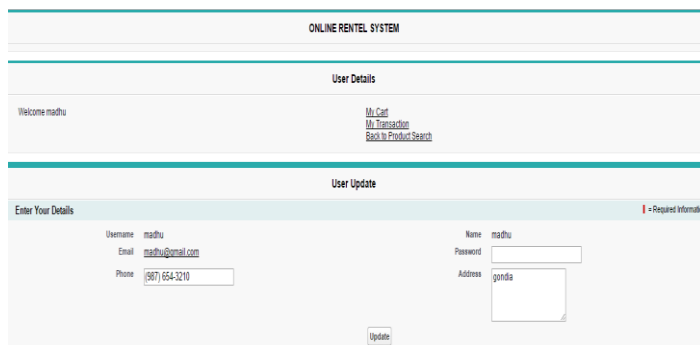
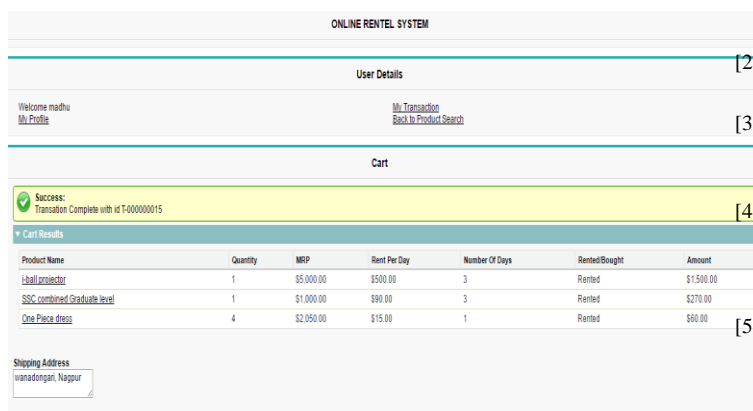


Fig 2.4. User updating details.

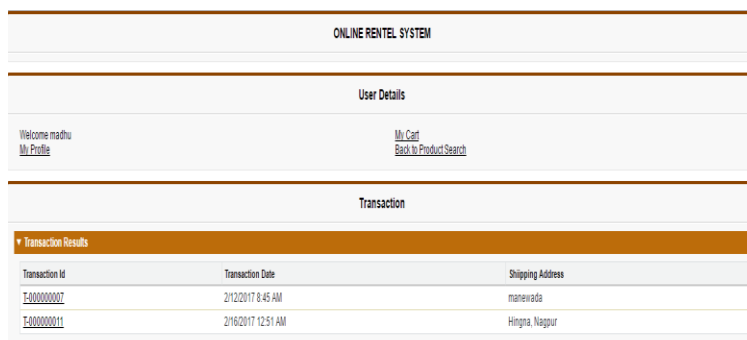
3.2.5. List view at user site with **Product name| Quantity| MRP| Rent per day| Number of day| Rented\Bought| Amount.**



Product Name	Quantity	MRP	Rent Per Day	Number Of Days	Rented/Bought	Amount
iball projector	1	\$5,000.00	\$500.00	3	Rented	\$1,500.00
SSC combined Graduate level	1	\$1,000.00	\$90.00	3	Rented	\$270.00
One Piece dress	4	\$2,050.00	\$15.00	1	Rented	\$60.00

Fig 2.5. View list in Cart

2.6. View Transaction details with **Transaction ID| Transaction Date| Shipping Address.**



Transaction Id	Transaction Date	Shipping Address
T-000000007	2/12/2017 8:45 AM	manevada
T-000000011	2/16/2017 12:51 AM	Hingna, Nagpur

Fig 2.6. Transaction details with cart management

3. CONCLUSION

This paper has present online rental system has offered advantage 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. Finally this system is providing good business for organization and company owner and for customers it will be good service. Multiple people these days prefer buying things online over the conventional method of going into stores.

Now rent process is also become online through this project and make available rental product online. So it save time of customer for searching product store to store and sorting billing problem also.

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