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CLOUD COMPUTING CUSTOMER RELATIONSHIP MANAGEMENT FOR ONLINE RENTAL SYSTEM

Swati Y. Dhengre¹, Snehlata R. Golam², Asmita B. Lokhande³, Devyani N. Kandalkar⁴,

Prof. Preeti K. Karmore⁵

¹²³⁴UG Students, B.E., Computer Science & Engineering, DBACER, Nagpur, Maharashtra, India ⁵Assistant Professor, B.E., Computer Science & Engineering, DBACER, Nagpur, Maharashtra, India

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.

Kev 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.

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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.



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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**.

New Product	Change Owner			AlB	CDEFGH	I I J K L M N O P	QRSTUV	W X Y Z Other
Action	Product Number +	Category	Description	Image Url	MRP	Name	Quantity	Rent Per day
Edit[Del	P-000003	Books	It is already checked. This book has been	http://ecx.images-a	\$600.00	BSNL JTO	12	\$110.00
Edit[Dei	P-000004	Books	uses for engineer s	http://www.skkataria	\$300.00	civil engineering	10	\$50.00
Edit Del	P-000005	Books	As pr the official ne	http://www.wileyindi	\$800.00	SBI PO EXAM	4	\$60.00
Edit Del	P-000005	Beoks	Qauntitative aptitud	http://1.bp.blegsp	\$600.00	Quantitative Aptit	10	\$20.00
Edit Del	P.000007	Books	The most details re	http://studychacti	\$1,000.00	SSC combined Gra	5	\$90.00
Edit Del	P-000011	Accessories	IBall Andi 4a Pro	http://www.techni	\$5,000.00	i-ball projector	6	\$500.00
Edit[Del	P-000012	Clothes	Three color avail.	http://www.inonit	\$2,750.00	Laxmipathi saree	2	\$200.00
Edit Del	P-000013	Clothes	10 color	http://blogimages	\$5,500.00	kanjivaram saree	20	\$150.00
Edit Del	P-000014	Clothes	New material	http://pehnaav.ce	\$2,249.00	Paithani Saree	9	\$100.00
Edit[Del	P-000015	Clothes	Most Demanded sw.	https://3.bp.blogs	\$3,880.00	Nauvari	4	\$120.00
Edit[Del	P-000016	Accessories	A printer is a device.	http://s3-ap-south	\$5,000.00	Printer	6	\$200.00
Edit Del	P-000017	Clothes	Three Color Yellow,	http://topyaps.co	\$2,093.00	kolkata cotton sarees	3	\$90.00
Edit Del	P-000018	Clothes	Only three colors a	https://wenus-gravit	\$4,040.00	lehengas	3	\$170.00
Edit Del	P-000019	Clothes	Nice Quality	http://theknotstory	\$5,000.00	Wedding suts for M.	. 10	\$200.00
Edit Del	P-000020	Clothes	Three color availab	http://www.dhresou	\$2,050.00	One Piece dress	3	\$15.00
Edit Del	P-000021	Clothes	Brand New	https://ae01.alicd	\$2,050.00	Coats	14	\$130.00

Fig 1.1 Product list

3.1.2. Details of each product separately at admin site.

Product P-000016			0
< Back to List: Custom Users		Cart 03	Costonice Page col cayou Printide Ven hop to allo Page
Product Detail	Edit Delete Clone		
Product Number	P-000016	Owner	Demo Salesforce [Change]
Name	Printer	MRP	\$5,000.00
Category	Accessories	Rent Per day	\$200.00
Description	A printer is a device that accepts text and graphic output from a computer and transfers the information to paper,	Quantity	6
Image Url	http://s3-ap-southeast-2.amazonaws.com/wc-prod		
Created By	Demo Salesforce, 2/12/2017 9:07 AM	Last Modified By	Demo Salesforce, 2/26/2017 5:09 AM
	Edit Delete Clone		
Cart	New Cart		Cart Help 🕐
No records to display			
~ Back To Top	Always show me	fewer A / Tmore records per related list	

Fig 1.2. Product details at Customer Site

80

Customize Page | Edit Layout | Printable View | Help for this Page 🕹

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

Product Edit New Pro	oduct						Help for this Page 🥝
Product Edit			Save Save & New	Cancel			
Information							= Required Information
	Name				Owner	Demo Salesforce	
	Category	None 🔻			MRP		
	Description				Rent Per day	0.00	
	Image Uri			A	Quantity		
			Save Save & New	Cancel			

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.

👆 📶 🖲 Edit | Delete | Create New View

Nev	w Custom	User Change Owner ()		A B	C D E F G H I J K	L M N O P Q R S T	U V W X Y Z Other
	Action	Username †	Password	Name	Phone	Email	User Number
0 E	Edit Del	asmita lokhande	asmi12345	asmita	(976) 691-0795	asmitalokhande123@gmai	<u>U-0000010</u>
0	Edit Del	Devyani Kandalkar	dev@123	Devyani	(997) 045-4810	devyani@gmail.com	<u>U-0000012</u>
0 E	Edit Del	hemant	12345	Hemant		hemant@123.com	<u>U-0000006</u>
0 E	Edit Del	madhu	Madhu@123	madhu	(987) 654-3210	madhu@gmail.com	<u>U-0000011</u>
0 E	Edit Del	Payal Ramteke	Payal@123	Payal	(987) 654-3210	payal91@gmail.com	<u>U-0000015</u>
0 E	Edit Del	Rajni Lokhande	rajni@123	rajni	(987) 654-3210	rajni123@gmail.com	<u>U-0000014</u>
0 E	Edit Del	Rakhi	swati123	Rakhi Dhengre	(986) 020-2869	rakhiydhengre@gmail.com	<u>U-0000013</u>
	Edit Del	Snehal	S123	Snehlata R Golam	(818) 086-6531	snehalqolam123@gmail.c	<u>U-0000008</u>
0 E	Edit Del	swati	Swati12345	Swati	(705) 891-1996	swatidhengre@gmail.com	<u>U-0000007</u>
0 E	Edit Del	sweety sute	sweety	sweety	987654321	sweety@gmail.com	<u>U-0000009</u>
0 E	Edit Del	yash	1234	yash agarwal	+919938125901	yash@yash.com	<u>U-0000001</u>

Fig 1.4. User's Detail at admin site

3.1.5.Details of each users at Admin site.

3.1.6. View All transaction at admin site.

All 🔹 Edit Delete Create N	w View		1	8 6
New Transaction Change Owner	2	A B	C D E F G H I J K L M N O P Q R S T U V W X Y Z Ot	er Al
Action Transaction Number 1			Shipping Address	
Edit Del T-00000002			Dharampeth,Nagpur	
Edit Del T-00000003			Nardanwan,Nagpur	
Edit[Del T-000000004			Ramdas Peth, Nagpur	
Edit Del T-000000005			manewada, nagpur	
Edit Del T-00000006			manewada	
Edit Del T-000000007			manewada	
Edit Del T-00000008			Sakardara, Nagpur	
Edit Del T-000000009			Friends colony, Nagpur	
Edit Del T-000000010			Ravi Nagar, Nagpur	
Edit Del T-000000011			Hingna, Nagpur	
Edit Del T-000000012			civil lines	
Editi Del T-000000014			Bhagawan Nagar Naggur	

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.

ONLINE RENTEL SYSTEM

3.2.1. Login page which shows the user id and password

IN O P Q R S T	U V W X Y Z Other All			
			Login	
ai	User Number	Enter Your Details		Required Information
nitalokhande123@qmai	<u>U-0000010</u>		Userane	
yani@gmail.com	<u>U-0000012</u>		Login	
mant@123.com	<u>U-0000006</u>	New User Click Here!		
dhu@qmail.com	<u>U-0000011</u>			

Fig 2.1. Customer Login.

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

ONLINE RENTEL SYSTEM						
User Registration						
Enter Your Details					= Required Information	
Usem Er Ph	ame Rajni Lokhande rajni 123@gmail.com one (987) 654-3210		Name Password Address	rajni ••••••• chandrapur		
Aready Register Click Herel		Register				

Fig 2.2. Registration to new user

3.2.3. User can search product with their category .

ONLINE RENTEL SYSTEM						
User Details						
Walcone madhu Mu Cait Mu Protection Mu Transaction						
Products						
* Search Product						
P	Joduct	Centrainy Books - Device Exercisi Citate				
		Accessones				
* Product Results - Page #1		Accessones				
 Product Results - Page #1 Name 	Category	Description	MEP	Rent Per I		
Product Results - Page #1 Name SSC combined Graduate level	Category Books	Description The most deals needed of these books for 65C COX	MEP \$1,000.00	Rent Per I		
Product Results - Page #1 Name SSG.combined Graduate level SBI PO EXAM	Category Books Books	Description The mole dealer of tasks for 65C COK Har covered all Tier 1 sections and salve papers. April to efficient news 50 has changed the patient of day on main examt exceeding to new patient. Description	MRP 51,000.00 5800.00	Rent Per 1 590.00 560.00		
Product Results - Page #1 Name SSC combined Graduate level SELPO EXAM Quantistive Acthude	Category Books Books Books	Decemption The next details reverse of heart basis for 55C COX Ner evened all The 1 sections and solve papers. All price heart hearts basis for 55C COX Ner evened all The 1 sections and solve papers. All price heart heart heart heart price and the parties and the parties heart and the reverse restriction due for heart in sections.	MRP 51,000.00 5800.00 5600.00	Rent Per 1 590.00 560.00 520.00		
Product Results - Page 81 Name SEC combined Graduate level SBLPO EXAM Quantitative Actitude BSNL JTQ	Category Books Books Books Books	Description The next details verse of best basis for 50C COX Hay evened all Text testions and salva papers As price and details verse of best basis for 50C COX Hay evened all Text testions and salva papers As price and containts and text basis of the patient of the partial containts and the testion of testing containts As price and containts and text basis the patient of testing basis used the testing testion of testing testing As price and testing testing the patient of testing testing testing testing As price and the testing the patient of testing testing testing testing As price and the testing the patient of testing testing As price and the testing the patient of testing testing As price and the testing the patient of testing testing As price and the testing testing testing testing As price and the testing testing As price and testing testing A	MEP 51,000.00 5800.00 5600.00 5600.00	Rent Per 1 590.00 560.00 520.00 5110.00		
Product Results - Page #1 Name SGC combined Graduate level SBI PO EXAM Quantitative Actuade BSNL_ITQ Gol engineering	Category Books Books Books Books Books	Description The near dealing review of heart beams for 500C COX Have covered all Thar 1 sections and solve pagess. All of the dealing review of heart beams for 500C COX	MBP \$1,000.00 \$800.00 \$600.00 \$600.00 \$300.00	Rent Per 1 590.00 560.00 520.00 5110.00 550.00		
Product Results - Page #1 Rem SSC combined Graduate level SBLPD EXAM Cuantisative Actitude SSL_ITC coll ensumering Top SSL	Category Books Books Books Books Books Clothes	Exercision The short interview of their blocks by 50% COK. Here covered at Terl 1 sections and only exercises and the short is according to the shor	MBP 51.000.00 5600.00 5600.00 5500.00 5500.00	Rent Per 1 590.00 560.00 520.00 5110.00 550.00 520.00		
Product Results Page 81 Name SSC combined Cleaduate level SSIP OF EAH Cuantisative Anthule SSINJUTO Cuantisative Anthule SSINJUTO Code Code	Category Books Books Books Books Books Clothes Accessories	Decemption The next deals review of heat basis for 5GC COX Har covered all Ther 1 sections and solve papers. All prior deals review of heat basis for 5GC COX Har covered all Ther 1 sections and solve papers. All prior deals review of heat basis of the patient of the particle and material basis and the review of metal the review of met	MBP 51.000.00 5600.00 5600.00 5300.00 5500.00 5300.00	Rent Per 1 590.00 560.00 520.00 5110.00 550.00 520.00 550.00		

Fig 2.3. Number of category available with product details.

		<u>van u</u>	
Custom User Detail	Edit Delete Clone		
User Number	U-0000015	Owner	Demo Salesforce [Change]
Email	payal91@gmail.com		
Password	Payal@123		
Address	Nagpur		
Name	Payal		
Phone	(987) 654-3210		
Username	Payal Ramteke		
Created By	Demo Salesforce, 2/24/2017 4:10 AM	Last Modified By	Demo Salesforce, 2/24/2017 4:10 AM
	Edit Delete Clone		



► U-0000015

« Back to List: Custom Users

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.

ONLINE RENTEL SYSTEM							
User Details							[2]
Welcome madhu Mil. <u>Transaction</u> Mir.Yollie Back to Product Search							[3]
	Cart						
Success: Transation Complete with id T-000000015							[4]
▼ Cart Results							
Product Name	Quantity	MRP	Rent Per Day	Number Of Days	Rented Bought	Amount	
i-ball 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	[5]
Shipping Address Iwanadongari, Nagpur							[3]

Fig 2.5. View list in Cart

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

ONLINE RENTEL SYSTEM						
User Details						
Welcome madhu <u>My Profile</u>	Home maßnu Mil <u>Cart</u> Photle Bad to Product Search					
Transaction						
 Transaction Results 						
Transaction Id	Transaction Date	Shiipping Address				
T-000000007	2/12/2017 8:45 AM	manewada				
T-000000011	2/16/2017 12:51 AM	Hingna, Nagpur				



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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