International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 08 Issue: 06 | June 2021 www.irjet.net p-ISSN: 2395-0072

CRM for Online Jewellery Shop

Mukul Kamble[1], Omkar Jagtap[2], Akash Patil[3], Gourav Nikam[4], Neel Chavan[5], K.B. Kari[5]

[1,2,3,4,5]B.Tech student, Computer Science and Engineering, SETI, Kolhapur, Maharashtra, India
[6]Guide, Dept. of Computer Science and Engineering, Sanjeevan Engineering and Technology Institute, Kolhapur, Maharashtra, India

---

Abstract - *The main objective of this paper is to study Customer Relationship Management (CRM) practices on Jewellery Shops. The Jewellery sector is the largest consumer sector in country like India, except foods and medical sectors. The Jewellery sector is fundamental part of nation's economy. The survey method was used to collect data form jewellery shops and customers. Competition is increasing day by day in all the sectors, as increase in demand people realizes the importance of Customer Relationship Management (CRM). Customer Relationship Management (CRM) is a combination of policies, processes, and strategies implemented by an organization to unify its customer interactions and provide a means to track customer information. Customer Relationship Management (CRM) is an emerging tool that enables marketers to maintain their presence in the dynamic marketing environment. The goal of Customer Relationship Management (CRM) is to ensure customer satisfaction & delight at every level of interface with the company/shop. Customer Relationship Management (CRM) is high on the corporate agenda. Recent research carried out by Business Intelligence reveals that six out of ten companies have already started out on the Customer Relationship Management (CRM) journey.*

Key Words: **CRM, Time saving, Business Intelligence, Customer Information, Marketing, Jewellery sector, Online Shopping, E-Commerce .**

1. INTRODUCTION

Today, precious stones and jewellery is a global industry, with gold, diamonds, platinum mining operations in Africa, Russia, Canada and Australia, Poland and the jewellery industry in the United States, Israel, China, India and Turkey, as well as retail sales around the world. The share of this industry is more than 15% of all our exports, and employs more than 1.3 million people. It is second only to information technology (IT) related to exports, and is 3.75 percent to our Gross Domestic Product (GDP). Gold jewellery represents about 80 per cent of the market, while the rest is scattered jewellery with diamonds and precious stones. India is the world's largest centre for diamond processing (cutting and polishing), where more than 57 percent of untreated diamonds are processed at the factory.

The Customer Relationship Management (CRM) system has transformed the way venders deal with their clients. With the ever-growing evolution of the internet surge, business corporations stand to snatch various amenities on the board. CRM for the jewellery industry also keeps a considerable impact. It is vital for business to opt for a jewellery CRM system.

Using CRMs, you are set to manage the sales process and keeps customers in a centralized database. Moreover, CRM strikes to collect the best services to help businesses manage their priceless relations with clients. They cover almost every industry with specific skills to serve more reliably.

2. LITERATURE SURVEY

Pahuja, Anurag(2008) opines that customer relationship management encompasses certain characteristics aspects. He says that business necessity regardless of whether one sells to end -consumer or to enterprise customers.[1]

According to KPV Ramanakumar (2008), Customer Relationship Management is an emerging tool that enables retail marketers to maintain their presence in the dynamic market environment. In early days CRM was the tool preferred by the manufacturers in order to motivate and retain retailers. Now retailers are applying this very same tool in order to retain customers.[2]

Ms. Preeti Srivastava(2013) explains that technology had played fundamental role in e-retailing. The rapid changes in consumer's shopping behaviour and attitude witness the shift in shopping attitude and perception for buying goods of various kinds including inexpensive goods like clothes, watches, sun-glasses or any other household goods and expensive goods viz. kitchen appliances, digital gadget, electronics items or jewellery. The study puts light on the jewellery buying behaviour of online shoppers of Lucknow. The study also wraps up main factors for their attitude towards shopping behaviour.[3]

Prof. Nilesh Anute and Dr. Anand Deshmukh (2015) writes on CRM practices towards selected gems & jewellery retailers. There research was conducted in Pune city and a survey method was used to collect the data from 20 Gems

and Jewellery retailers and 40 customers. Gems and jewellery sector is an integral part of the nation's economy with its huge potential. The jewellery market is one of the largest consumer sectors in the country- larger than telecom, automobiles, and apparel and perhaps second only to the foods sector. Today in the highly competitive market, increasing customer demands retail outlets realize the importance of customer relationship management.[4]

Tejaswini D. Mali, Pranali P. Wathare, Moseena M. Mulla and Prof. S. B. Shendge(2020) explains the traditional system store and its limitations, how E Commerce overcomes these limitations. The system is fully automatic and time saving. Paperless invoice printing, SMS invoice gadget, Advanced control gadget for managing database, Work and time saving gadget are the advantages this system. How the database should be of the system is well explained in simple language. This system how overcome the manual problems is also explained.[5]

2.1 Need of work

Today most of the jewellery shop is useful for shopping site. The admin have lots of paper work and they are using desktop, spread sheet like MS Excel application to manage data in soft copy about user record.

3. PROBLEM DEFINATION

The project aims to develop an online jewellery shopping for customers with the goal so that it is easy to shop. The aim includes reducing the manual effort needed to manage transactions and historical data used in various goods own.

The system provides an interface to users to view details as well as maintains the centralized database so that any changes done at a location reflects immediately. This is an online tool so more than one user can login into system and use the system simultaneously.

4. OBJECTIVE

The main objective of this project is to provide online platform to customers and vendors that provides an interface to view the details about the product. It will automate some basic operations for online jewellery store. The objective includes providing basic functionalities using web application, reducing the manual process.

5. ARCHITECTURE.

5.1 System Architecture

There are three functional components of this system i.e. the admin, the customer and the payment module. Both admin and user need to login in order to access the information. Main functionality of admin is to maintain the product details. Main functionality of customer is to review the catalogue even if he/she is not registered with the site. If the customer needs to purchase any product then he/she will have to register with the website. All the products chosen by the customer for purchase would get added to the shopping cart and the bill will be generated once the customer confirms the purchase. The customer can also edit the personal information and view the order history. The main functionality of payment module is to generate the bill and maintain the transaction.

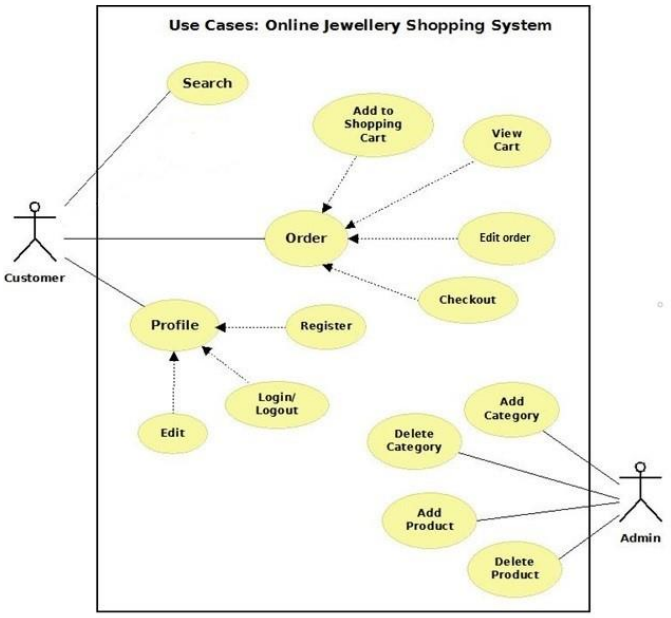


Diagram -1: Online Jewellery Shopping System

5.2 Modules

The system is implemented in PHP and consists of three main modules:

1. **Admin Module**

Admin side consists of the features such as Creating Username & Password, Input Items, Modify Items, Delete items, Query Sale Data, Query Database's data, and Logout.

2. **Customer Module**

Customer side consists of the features such as Select Products, Search Products, Buy Items, Continue Shopping, View Cart, Checkout, Sign-in, Creating an Account, Bill/Ship Information, Confirm, Send Order, and Delete Order. There are also the future works for this application.

There are mainly three such objectives which are as follows:

- To shop in the comfort of your home, without having to step out of the door.
- To be able to easily save money and compare prices from website to website.

3. Payment Module

Payment Module consists of features such as Calculate total bill, Pay the bill via CC/DC, Online Payment Transaction.

6. IMPLEMENTATION

Implementation includes all those activities that take place to convert from the old system to the new. The old system consists of manual operations, which is operated in a very different manner from the proposed new system. A proper implementation is essential to provide a reliable system to meet the requirements of the organizations. An improper installation may affect the success of the computerized system.

The most secure method for conversion from the old system to the new system is to run the old and new system in parallel. In this approach, a person may operate in the manual older processing system as well as start operating the new computerized system. This method offers high security, because even if there is a flaw in the computerized system, we can depend upon the manual system. However, the cost for maintaining two systems in parallel is very high. This outweighs its benefits.

The implementation plan includes a description of all the activities that must occur to implement the new system and to put it into operation. It identifies the personnel responsible for the activities and prepares a time chart for implementing the system. The implementation plan consists of the following steps.
List all files required for implementation.
Identify all data required to build new files during the implementation. List all new documents and procedures that go into the new system.

The implementation plan should anticipate possible problems and must be able to deal with them. The usual problems may be missing documents; mixed data formats between current and files, errors in data translation, missing data etc.
After the system is implemented, a review should be conducted to determine whether the system is meeting expectations and where improvements are needed. System quality, user confidence and operating systems statistics are accessed through such technique event logging, impact evaluation and attitude surveys. The review not only assesses how well the proposed system is designed and implemented, but also is a valuable source of information that can be applied to a critical evaluation of the system. The reviews are conducted by the operating personals as well as the software developers in order to determine how well the system is working, how it has been accepted and whether adjustments are needed. The review of the system is highly essential to determine the future enhancements required by the system. The system can be considered successful only if information system has met it objectives. The review analyses the opinion of the employees and identifies the attitudes towards the new computerized system. Only when the merits and demerits of the implemented system are known, one can determine what all additional features it requires are.

6.1 Experimental Setup

Project overview:
Front End: HTML, CSS, JavaScript
Back End: PHP, MYSQL

Hardware Specification:
Processor: Intel Core Duo 2.0 GHz or Higher.
RAM: Minimum 1GB or Greater
Hard disk: 20GB (Free Space).

Software Specification:
Software: Sublime, XAMPP, Browser(support JavaScript)
Operating System: Unix/Linux/Windows 7 or Higher.

6.2 Testing System

Testing is the set of activities that can be planned in advanced and s conducted systematically. Testing requires that the developer discard preconceived notions of the "correctness" of the software just developed and overcome a conflict of interest that occurs when errors are encountered.
Testing principles are:
All tests should be traceable to customer requirements
Testing should be planned long before the testing begins.
Testing should begin "in the small" and progress towards testing "in the large".
Exhaustive testing is not possible
To be most effective, testing should be conducted by an independent third party.
Testing objective are

- Testing is the process of executing a program within the intent of finding an error.
- A good test case is one that has high probability of finding an as-yet-undiscovered error.

- A successful test is one that un covers an as yet-undiscovered error.

7. RESULT

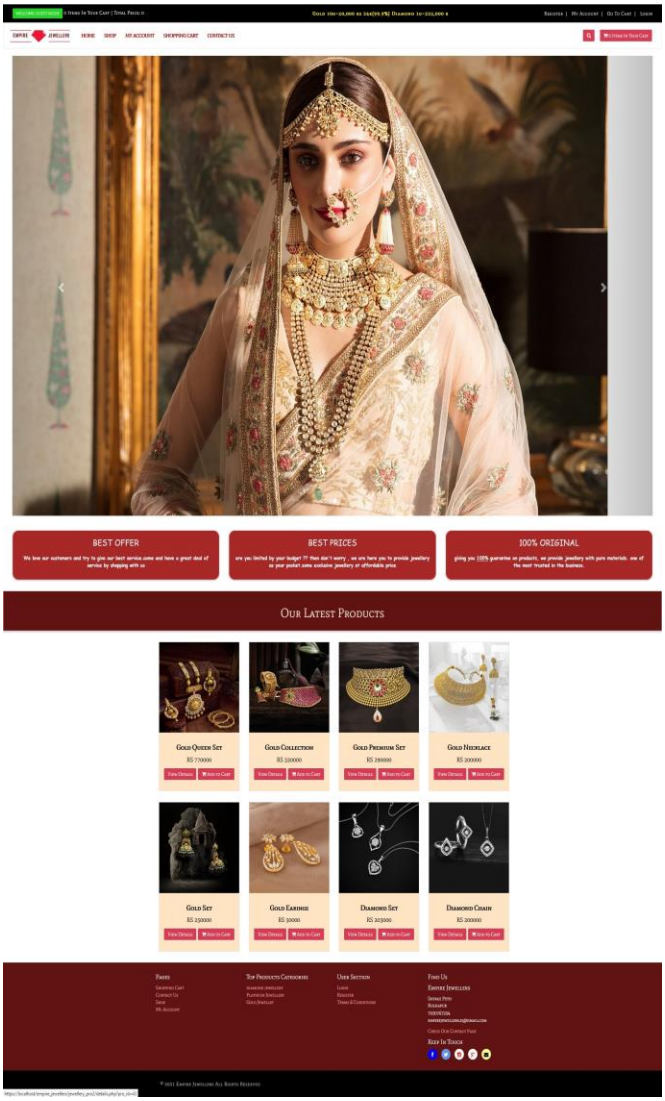


Fig -1: Home Page

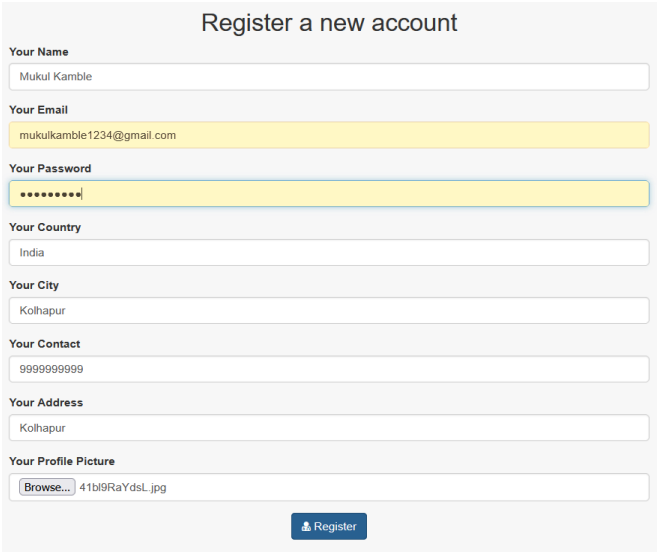


Fig-2: Registration

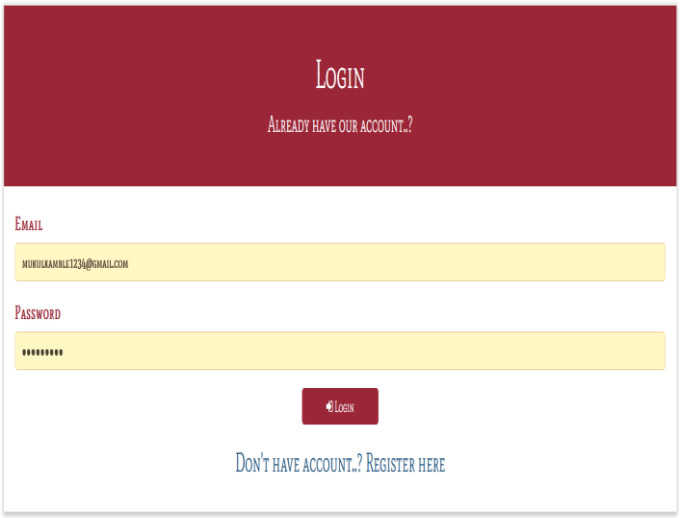


Fig-3: Login Page

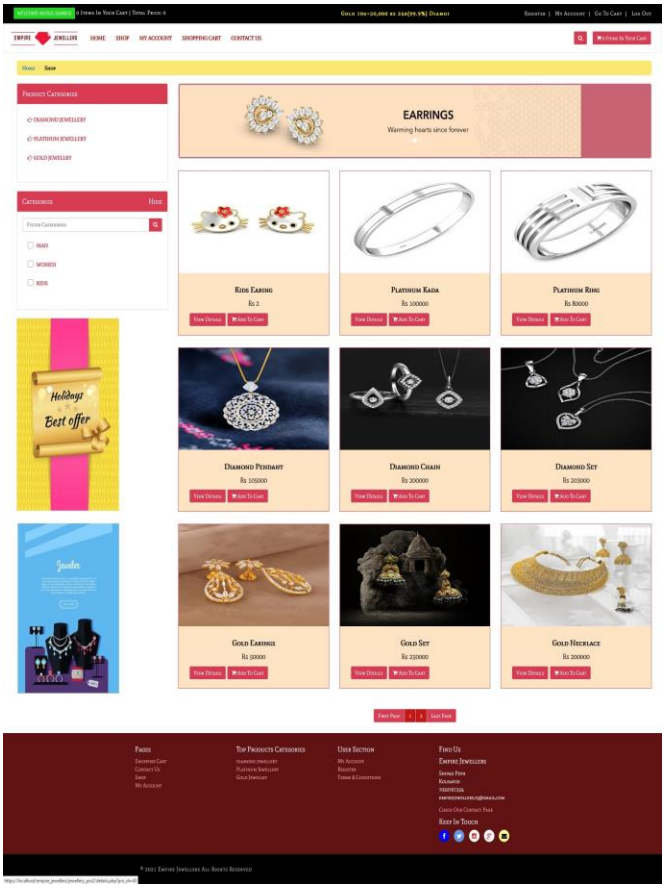


Fig-4: Shopping Page

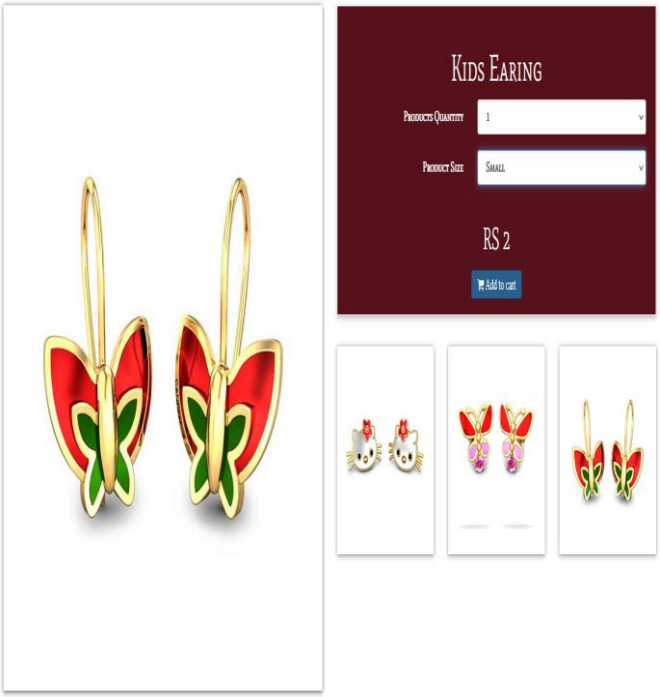


Fig- 5: Add to cart

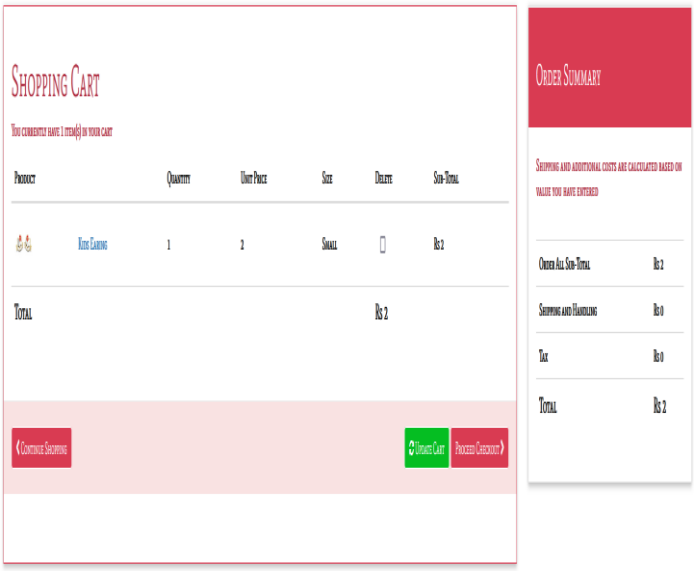


Fig-6: Checkout

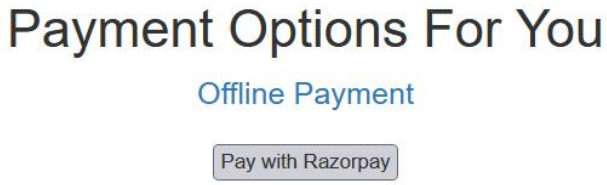
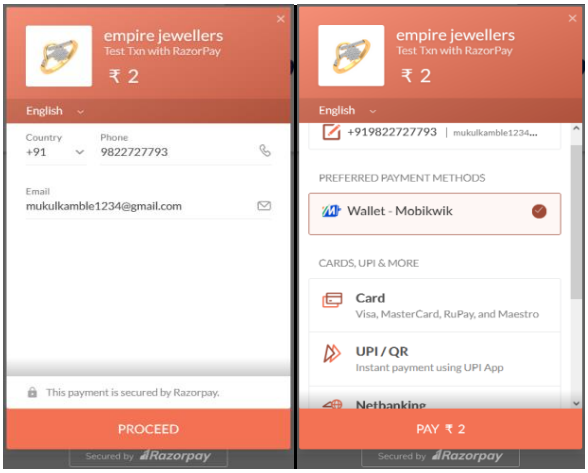


Fig-7: Payment Option



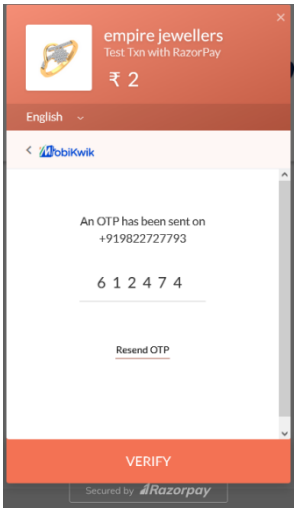


Fig-9: Payment

Fig-10: Order Submitted

Fig-11: Booking Confirmed

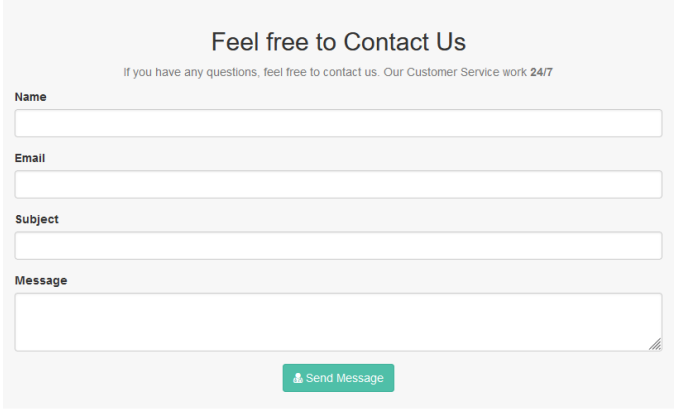


Fig-12: Contact Us

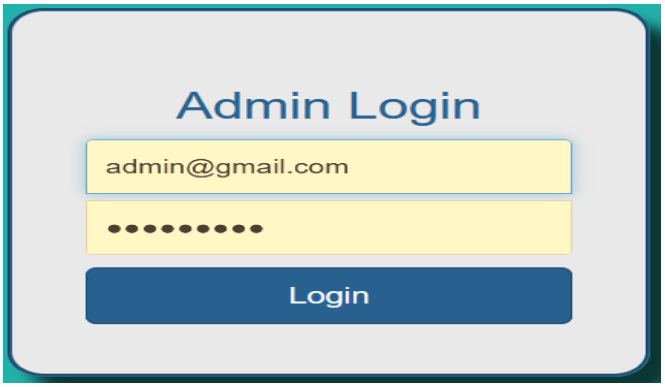


Fig-13: Admin Login

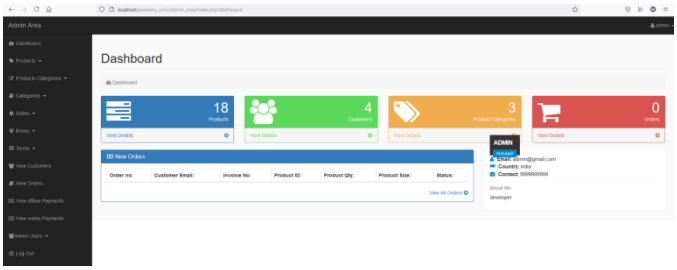


Fig-14: Admin Dashboard

Fig-15: Tabels is Database

admin_id	admin_name	admin_email	admin_pass	admin_image	admin_country	admin_about	admin_contact	admin_job
1	admin	admin@gmail.com	@admin123		india	developer	9999999999	manager

Fig-16: Admin Table

p_id	ip_add	qty	p_price	size
18	::1	1		

Fig-16: Cart

cat_id	cat_title	cat_top	cat_image
1	Man	yes	men.jpg
2	Women	yes	women.jpg
3	Kids	no	kids.jpg

Fig-17: Categories

customer_id	customer_name	customer_email	customer_pass	customer_country	customer_city	customer_contact	customer_address	customer_image	customer_ip
1	Mukul Kamble	mukulkamble1234@gmail.com	@Mukul123	India	Kolhapur	9999999999	Pachgaon	41b9RaYdsL.jpg	127.0.0.1
2	Akash Patil	akashpatil002.ap@gmail.com	@akash123	India	Kandur	9999999999	A/P Kandur		
3	Gourav Nikam	gouravnikam4@gmail.com	@gourav123	India	kolhapur	9999999999	Kolhapur		
4	Omkar Jagtap	omkarjagtap0809@gmail.com	@omkar123	India	Kolhapur	9999999999	Kolhapur		

Fig-18: Customers

order_id	customer_id	due_amount	invoice_no	qty	size	order_date	order_status
11	6	300	206863956	1	Small	2019-02-06	Complete
12	6	10	206863956	1	Small	2019-02-06	Complete
13	5	10	949505855	1	Small	2019-09-14	Complete
14	7	90	468395365	2	Small	2020-01-25	pending
15	7	45	468395365	1		2020-01-25	pending
16	7	204	468395365	3	Medium	2020-01-25	pending
17	8	68	693642024	1		2020-02-08	Complete
18	12	3000	781480077	1		2021-06-07	Complete
19	12	1	1580985708	1	Small	2021-06-11	Complete

Fig-19: Customers and Orders

payment_id	invoice_no	amount	payment_mode	ref_no	code	payment_date
6	206863956	10	Western Union	123123	321321	02-09-2019
7	1231231	1313	Back Code	123132	123123	123123
8	12354656	68	Back Code	0	64679079	8/12/2019
9	1111111111	4000	Western Union	0	1212	6/7/2021
10	11111111	1	Paypall	11111111	0	6/7/2021

Fig-20: Payments

product_id	p_cat_id	cat_id	manufacturer_id	date	product_title	product_img1	product_img2	product_img3	product_price	product_keywords	product_desc	product_label	product_sale
19	1	2	1	2020-09-23 15:38:09	Diamond ring for women	diamond_ring.png			15000	Diamond studed ring			0
20	1	2	1	2020-09-23 15:39:03	Diamond Ring with platinum base	diamond_ring_plat_base.png	diamond_ring_plat_base.png	diamond_ring_plat_base.png	30000	Platinum Base			0
21	1	2	1	2020-09-23 15:39:54	Diamond Necklace	diamond_necklace.png	diamond_necklace.png	diamond_necklace.png	20000	Diamond Studed			0
22	1	2	1	2020-09-23 15:29:39	Diamond Anklet	diamond_anklet.png	diamond_anklet.png	diamond_anklet.png	20000	Anklet With Small Diamonds			0
23	3	2	1	2020-09-23 14:59:07	Gold Necklace	gold_jeweelery.jpg	gold_jeweelery.jpg	gold_jeweelery.jpg	15000	Gold Necklace			0
24	3	2	1	2020-09-23 15:00:42	Fancy Jewellery	fancy.jpg	fancy.jpg	fancy.jpg	10000	Made with mixed metals			0
25	3	2	1	2020-09-23 15:02:18	Gold Anklet	gold_anklet.png	gold_anklet.png	gold_anklet.png	7000	Gold Anklet			0
26	3	2	1	2020-09-23 15:04:13	Golden Earring	golden_earrings.png	golden_earrings.png	golden_earrings.png	2000	Fancy Golden Ear rings			0
27	3	2	1	2020-09-23 15:05:51	Golden Bangles	golden_bangles.png	golden_bangles.png	golden_bangles.png	2000	Designed Gold Bangles			0
28	2	1	1	2020-09-23 15:08:17	Men Platinum Bracelet	men_silverbrac.png	men_silverbrac.png	men_silverbrac.png	5000	Designed Bracelets			0
29	3	1	1	2020-09-23 15:09:52	Men Gold Bracelet	men_bracelet.png	men_bracelet.png	men_bracelet.png	3000	Men Bracelet			0
30	2	1	1	2020-09-23 15:11:14	Men Luxury Ring	luxury_ring_men.png	luxury_ring_men.png	luxury_ring_men.png	4000	Mixed Metal Rings			0
31	3	1	1	2020-09-23 15:13:02	Gold Chain	men_goldchain.png	men_goldchain.png	men_goldchain.png	5000	Gold Chain for Men			0
32	3	1	1	2020-09-23 15:15:13	Rudraksh	gold_rudraksh.png	gold_rudraksh.png	gold_rudraksh.png	3000	Gold Plated Rudraksh			0
33	1	3	1	2020-09-23 15:17:19	Diamond Kids Ring	diamond_kidring.png	diamond_kidring.png	diamond_kidring.png	6000	Beautifully Studed Diamond Ring			0
34	3	3	1	2020-09-23 15:19:04	Kids Set	kids_set.png	kids_set.png	kids_set.png	5000	Set for kids			0
35	3	3	1	2020-09-23 15:20:29	Gold Necklace	kids_gold_necklace.png	kids_gold_necklace.png	kids_gold_necklace.png	4000	Necklace for kids			0
36	3	1	1	2021-06-12 18:59:58	test	41b9RaYdsL.jpg	20618.jpg	41b9RaYdsL.jpg	2	test	test		0

Fig-21: Products

8. CONCLUSIONS

Installing jewellery CRM affects your business predominantly. Today's cut-throat competition has perused the marketers to adopt the latest technologies to gain maximum profits that they strive for. Now, it seems that survival without these digitally-driven tools is no longer possible.

The proposed system will deals with the purchase and sales processing of a Jewellery shop. The process of recording details about supplier, item, billing and customers becomes more simple and easy. The system reduces the possibility of errors to a greater extent and maintains the data efficiently.

The system is user-friendly, highly interactive and flexible for further enhancement. The system generates the reports as when required. The coding is done in a simplified and understandable manner.

ACKNOWLEDGEMENT

It gives an immense pleasure to present paper on the successful completion of my project and paper work on "**CRM for Online Jewellery Shop**". We express our deep sense of gratitude to our guide "**Asst.Prof.K.B.Kari**" for her valuable guidance rendered in all phases of project and paper. We are thankful her wholehearted assistance, advice and expert guidance towards making our project and paper success. My special thanks to respected Principal and Head of Department for their keen interest, encourage and excellent support.

REFERENCES

[1] Pahuja Anurag & Verma Rajesh (2008), "Customer Relationship Management Need of the Hour", Marketing Mastermind, January. p.p. 26-29.

[2] KPV Ramanakumar (2008), " effective role of CRM in Indian Retail Market ", Marketing Mastermind, February. p.p. 28-30.

[3] Preeti Srivastava(2013), "A Study of Consumer Online Shopping Attitude and Behaviour towards Jewellery, December PP 21-24.

[4] Nilesh Balvant Anute & Anand Deshmukh(2015)," Customer Relationship Management Practices in Gems & Jewellery Retail Sector, June (IMPACT FACTOR – 5.545).

[5] Tejaswini D. Mali , Pranali P. Wathare, Moseena M. Mulla, and Prof. S. B. Shendge (2020), "E-Commers using Jewellery Shop Application", January. Impact Factor value: 7.34.

[6] Evolving the customer relationship management paradigm in the retail industry. International Journal of Customer Relationship Management by Kenyon, J. &Vakola, M. (2001).

[7] Customer Relationship Management (CRM) in context of food Marketing – A Fuzzy Logic Approach Indian journal of Marketing by Devesh M., Madhurima D., Kalyan Kumar & Gautam Sinha(2007).

[8] Study of Customer Relationship Management (CRM) Practices in organized retail shopping Malls at bengaluru city in India by Mayur Kumar A.

BIOGRAPHIES

Mukul R. Kamble Pursuing B.Tech Degree in Computer Science and Engineering from Sanjeevan Engineering and Technology Institute and completed HSC from The New College, Kolhapur in 2017.

Omkar N. Jagtap Pursuing B.Tech Degree in Computer Science and Engineering from Sanjeevan Engineering and Technology Institute and completed Diploma in Computer Engg from Dr. Bapuji Salunkhe Institute of Engg and Tech Kolhapur, in 2018.

Akash P. Patil Pursuing B.Tech Degree in Computer Science and Engineering from Sanjeevan Engineering and Technology Institute and completed Diploma in Computer Engg from Nanasaheb Mahadik Polytechnic Institute Peth , in 2018.

Gourav P. Nikam Pursuing B.Tech Degree in Computer Science and Engineering from Sanjeevan Engineering and Technology Institute and completed HSC from S.M Lohiya College, Kolhapur in 2015.

Neel P. Chavan Pursuing B.Tech Degree in Computer Science and Engineering from Sanjeevan Engineering and Technology Institute and completed HSC from Private junior College, Kolhapur in 2016.

Kaveri B. Kari Completed M.Tech & B.Tech in Computer Science & Engineering from VTU, Belgaum. Currently working as Assistant Professor in the Department of CSE at SETI, Kolhapur. Here area of interest is Image Processing & Computer Network.